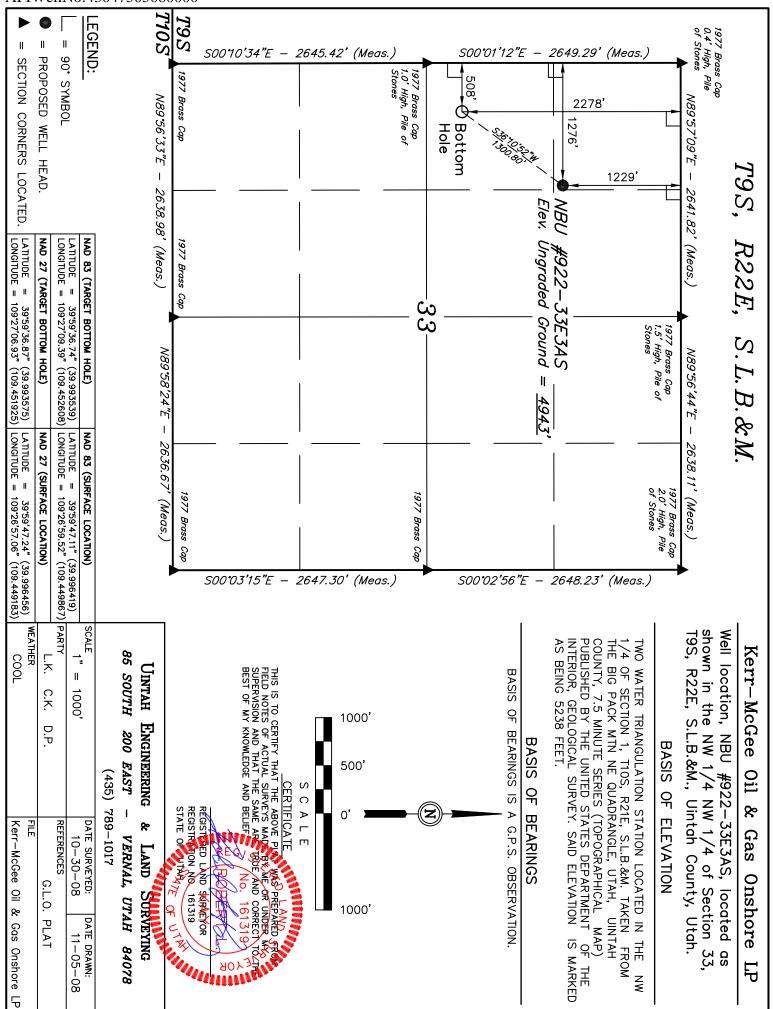
		CES IG		FORI					
APPLI	CATION FOR	R PERMIT TO DRILL				1. WELL NAME and NUMBER NBU 922-33E3AS			
2. TYPE OF WORK  DRILL NEW WELL (	REENTER P	&A WELL ( DEEPER	N WELL			3. FIELD OR WILDCAT NATURAL BUTTES			
4. TYPE OF WELL Gas We		bed Methane Well: NO				5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES			
6. NAME OF OPERATOR		GAS ONSHORE, L.P.				7. OPERATOR PHON			
8. ADDRESS OF OPERATOR P.O	. Box 173779, [	Denver, CO, 80217				9. OPERATOR E-MA mary.me	IL ondragon@anadarko	.com	
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)	-	I	12. SURFACE OWN						
UTU 01191A	IAN STATE (	2	FEE (III)		DIAN DIAN STATE (	~ ~			
13. NAME OF SURFACE OWNER (if box 12	= 'fee')					14. SURFACE OWNI	ER PHONE (if box 1	2 = 'fee')	
15. ADDRESS OF SURFACE OWNER (if box	12 = 'fee')					16. SURFACE OWNI	ER E-MAIL (if box 1	.2 = 'fee')	
17. INDIAN ALLOTTEE OR TRIBE NAME		18. INTEND TO COM		ION F	ROM	19. SLANT			
(if box 12 = 'INDIAN')  MULTIPLE FORMATIONS  YES (Submit Commingling Application) NO (						VERTICAL DIR	RECTIONAL 📵 HO	ORIZONTAL 🗍	
20. LOCATION OF WELL	FC	FOOTAGES QTR-QTR SECTION				TOWNSHIP	RANGE	MERIDIAN	
LOCATION AT SURFACE	1229 F	NL 1276 FWL	NWNW		33	9.0 S	22.0 E	S	
Top of Uppermost Producing Zone	2278 F	FNL 508 FWL	SWNW		33	9.0 S	22.0 E	S	
At Total Depth	At Total Depth         2278 FNL         508 FWL         SWNW         33					9.0 S	22.0 E	S	
21. COUNTY  UINTAH		22. DISTANCE TO NE	AREST LEASE LIN 508	E (Fee	et)	23. NUMBER OF AC	RES IN DRILLING U	JNIT	
		25. DISTANCE TO NE (Applied For Drilling		AME P	POOL	<b>26. PROPOSED DEPTH</b> MD: 9459 TVD: 9100			
<b>27. ELEVATION - GROUND LEVEL</b> 4943		28. BOND NUMBER	WYB000291			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496			
		AT	TACHMENTS		'				
VERIFY THE FOLLOWING	ARE ATTACH	HED IN ACCORDANC	CE WITH THE UT	ган с	OIL AND G	AS CONSERVATI	ON GENERAL RU	ILES	
<b>✓</b> WELL PLAT OR MAP PREPARED BY	LICENSED SU	RVEYOR OR ENGINEER	сом	PLETE	E DRILLING	PLAN			
AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE) FORM 5. IF OPERA						R IS OTHER THAN TI	HE LEASE OWNER		
DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY TOPOGRAPHICAL M						•			
NAME Danielle Piernot TITLE Regulatory Analyst PH						929-6156			
SIGNATURE		EMAIL danielle.piernot@anadarko.com							
API NUMBER ASSIGNED 43047505080000	A	APPROVAL		Bacqill					
					Perm	nit Manager			

API Well No: 43047505080000 Received: 6/19/2009

	Proposed Hole, Casing, and Cement											
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)								
Prod	7.875	4.5	0	9459								
Pipe	Grade	Length	Weight									
	Grade I-80 LT&C	9459	11.6									

API Well No: 43047505080000 Received: 6/19/2009

	Prop	oosed Hole, Casing, a	and Cement		
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)	
Surf	12.25	9.625	0	2220	
Pipe	Grade	Length	Weight		
	Grade J-55 LT&C	2220	36.0		





+E/-W

612341.96

0.00

+N/-S

10500

-750

750

Vertical Section at 216.21° (1500 ft/in)

1500

2250

0.00

# Project: Uintah County, UT NAD27 Kerr McGee Oil and Gas Onshore LP

Site: NBU 922-33D Pad Well: NBU 922-33E3AS

Wellbore: OH Design: Plan 2

# WELL DETAILS: NBU 922-33E3AS

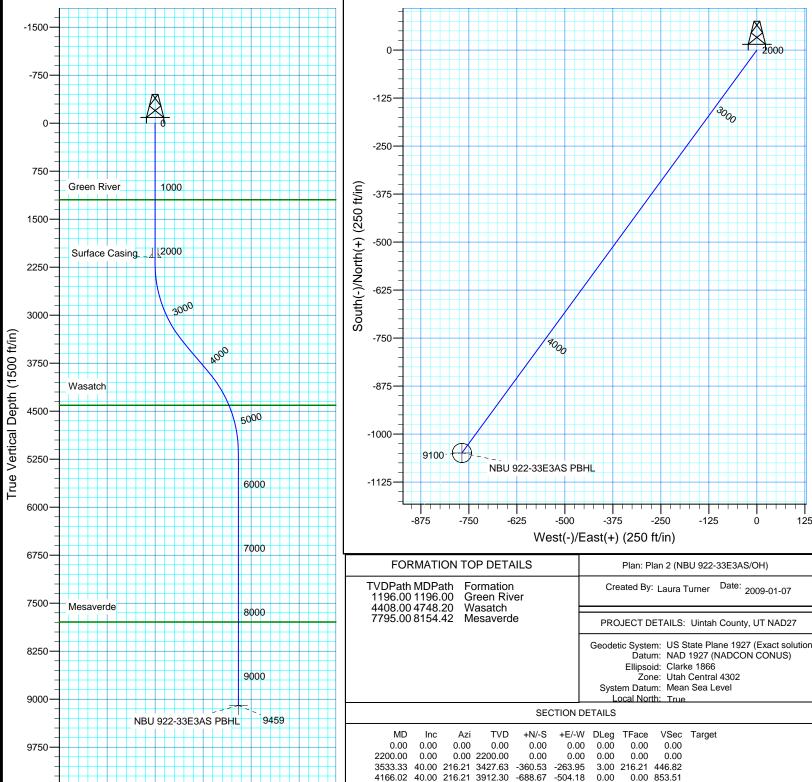
GL 4942' & RKB 18' @ 4960.00ft Ground Level: Northing Easting

Latitude Longitude 2574506.72 39° 59' 47.240 N 109° 26' 57.060 W

Azimuths to True North Magnetic North: 11.36°

> Magnetic Field Strength: 52609.2snT Dip Angle: 65.95° Date: 12/12/2008

Model: IGRF2005-10



5499.35

9459.42

0.00

0.00

0.00 5139.93 -1049.20

0.00 9100.00 -1049.20

-768.13

-768.13

3.00

0.00

180.001300.33

0.001300.33

NBU 922-33E3AS PBHL

# **Kerr McGee Oil and Gas Onshore LP**

Uintah County, UT NAD27 NBU 922-33D Pad NBU 922-33E3AS OH

Plan: Plan 2

# **Standard Planning Report**

08 January, 2009

### **Planning Report**

Database: EDM2003.16 MultiuserDB

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT NAD27
Site: NBU 922-33D Pad
Well: NBU 922-33E3AS

Wellbore: OH
Design: Plan 2

Local Co-ordinate Reference:

TVD Reference: GL 4942' & RKB 18' @ 4960.00ft

MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 922-33E3AS

GL 4942' & RKB 18' @ 4960.00ft

True

Minimum Curvature

Project Uintah County, UT NAD27

Map System: US State Plane 1927 (Exact solution)

Geo Datum: NAD 1927 (NADCON CONUS)

Map Zone: Utah Central 4302

System Datum: Mean Sea Level

Site NBU 922-33D Pad, Sec 33 T6S R22E

Northing: 611,096.92ft Site Position: Latitude: 39° 59' 35.060 N 109° 27' 4.360 W From: Lat/Long Easting: 2,573,967.00ft Longitude: **Position Uncertainty: Grid Convergence:** 0.00 ft **Slot Radius:** 1.31°

Well NBU 922-33E3AS, 1229' FNL 1276' FWL

 Well Position
 +N/-S
 0.00 ft
 Northing:
 612,341.96 ft
 Latitude:
 39° 59′ 47.240 N

 +E/-W
 0.00 ft
 Easting:
 2,574,506.72 ft
 Longitude:
 109° 26′ 57.060 W

Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 4,942.00 ft

Wellbore OH

 Magnetics
 Model Name
 Sample Date (°)
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 IGRF2005-10
 12/12/2008
 11.36
 65.95
 52,609

Design Plan 2

**Audit Notes:** 

Version: PLAN Tie On Depth: 0.00

 Vertical Section:
 Depth From (TVD)
 +N/-S
 +E/-W
 Direction

 (ft)
 (ft)
 (ft)
 (°)

 0.00
 0.00
 0.00
 216.21

Plan Section	s									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,533.33	40.00	216.21	3,427.63	-360.53	-263.95	3.00	3.00	0.00	216.21	
4,166.02	40.00	216.21	3,912.30	-688.67	-504.18	0.00	0.00	0.00	0.00	
5,499.35	0.00	0.00	5,139.93	-1,049.20	-768.13	3.00	-3.00	0.00	180.00	
9,459.42	0.00	0.00	9,100.00	-1,049.20	-768.13	0.00	0.00	0.00	1 00.0	NBU 922-33E3AS F

### **Planning Report**

Database: EDM2003.16 MultiuserDB

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT NAD27 Site: NBU 922-33D Pad Well: NBU 922-33E3AS

Wellbore: OH
Design: Plan 2

**Local Co-ordinate Reference:** 

TVD Reference:
MD Reference:

North Reference:

**Survey Calculation Method:** 

Well NBU 922-33E3AS

GL 4942' & RKB 18' @ 4960.00ft GL 4942' & RKB 18' @ 4960.00ft

True

Minimum Curvature

nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,196.00	0.00	0.00	1,196.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Ca 2,200.00	o.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	3.00	216.21	2,299.95	-2.11	-1.55	2.62	3.00	3.00	0.00
2,400.00	6.00	216.21	2,399.63	-8.44	-6.18	10.46	3.00	3.00	0.00
2,500.00	9.00	216.21	2,498.77	-18.97	-13.89	23.51	3.00	3.00	0.00
2,600.00	12.00	216.21	2,597.08	-33.67	-24.65	41.74	3.00	3.00	0.00
2,700.00	15.00	216.21	2,694.31	-52.51	-38.44	65.08	3.00	3.00	0.00
2,800.00	18.00	216.21	2,790.18	-75.42	-55.22	93.48	3.00	3.00	0.00
2,900.00	21.00	216.21	2,884.43	-102.35	-74.93	126.85	3.00	3.00	0.00
3,000.00	24.00	216.21	2,976.81	-133.23	-97.54	165.12	3.00	3.00	0.00
3,100.00	27.00	216.21	3,067.06	-167.96	-122.97	208.16	3.00	3.00	0.00
3,200.00	30.00	216.21	3,154.93	-206.46	-151.15	255.87	3.00	3.00	0.00
3,300.00	33.00	216.21	3,240.18	-248.61	-182.01	308.12	3.00	3.00	0.00
3,400.00	36.00	216.21	3,322.59	-294.31	-215.47	364.75	3.00	3.00	0.00
3,500.00	39.00	216.21	3,401.91	-343.42	-251.42	425.62	3.00	3.00	0.00
3,533.33	40.00	216.21	3,427.63	-360.53	-263.95	446.82	3.00	3.00	0.00
3,600.00	40.00	216.21	3,478.70	-395.11	-289.26	489.67	0.00	0.00	0.00
3,700.00	40.00	216.21	3,555.31	-446.97	-327.23	553.95	0.00	0.00	0.00
3,800.00	40.00	216.21	3,631.91	-498.84	-365.20	618.23	0.00	0.00	0.00
3,900.00	40.00	216.21	3,708.52	-550.70	-403.17	682.51	0.00	0.00	0.00
4,000.00	40.00	216.21	3,785.12	-602.57	-441.15	746.79	0.00	0.00	0.00
4,100.00	40.00	216.21	3,861.73	-654.43	-479.12	811.07	0.00	0.00	0.00
4,166.02	40.00	216.21	3,912.30	-688.67	-504.18	853.51	0.00	0.00	0.00
4,200.00	38.98	216.21	3,938.52	-706.11	-516.95	875.11	3.00	-3.00	0.00
4,300.00	35.98	216.21	4,017.87	-755.20	-552.89	935.96	3.00	-3.00	0.00
4,400.00	32.98	216.21	4,100.29	-800.87	-586.33	992.56	3.00	-3.00	0.00
4,500.00	29.98	216.21	4,185.56	-843.01	-617.17	1,044.78	3.00	-3.00	0.00
4,600.00	26.98	216.21	4,273.45	-881.48	-645.34	1,092.46	3.00	-3.00	0.00
4,700.00	23.98	216.21	4,363.71	-916.19	-670.75	1,135.47	3.00	-3.00	0.00

### **Planning Report**

Database: EDM2003.16 MultiuserDB

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT NAD27 Site: NBU 922-33D Pad Well: NBU 922-33E3AS

Wellbore: OH
Design: Plan 2

**Local Co-ordinate Reference:** 

TVD Reference:
MD Reference:

North Reference: Survey Calculation Method: Well NBU 922-33E3AS

GL 4942' & RKB 18' @ 4960.00ft GL 4942' & RKB 18' @ 4960.00ft

True

Minimum Curvature

ned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,748.20 <b>Wasatch</b>	22.53	216.21	4,408.00	-931.54	-681.99	1,154.51	3.00	-3.00	0.00
4,800.00 4,900.00 5,000.00	20.98 17.98 14.98	216.21 216.21 216.21	4,456.11 4,550.37 4,646.25	-947.03 -973.94 -996.83	-693.33 -713.03 -729.79	1,173.71 1,207.05 1,235.42	3.00 3.00 3.00	-3.00 -3.00 -3.00	0.00 0.00 0.00
5,100.00 5,200.00 5,300.00 5,400.00 5,499.35	11.98 8.98 5.98 2.98 0.00	216.21 216.21 216.21 216.21 0.00	4,743.48 4,841.80 4,940.94 5,040.63 5,139.93	-1,015.64 -1,030.31 -1,040.81 -1,047.12 -1,049.20	-743.56 -754.30 -761.99 -766.61 -768.13	1,258.73 1,276.92 1,289.93 1,297.74 1,300.33	3.00 3.00 3.00 3.00 3.00	-3.00 -3.00 -3.00 -3.00 -3.00	0.00 0.00 0.00 0.00 0.00
5,500.00 5,600.00 5,700.00 5,800.00 5,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	5,140.58 5,240.58 5,340.58 5,440.58 5,540.58	-1,049.20 -1,049.20 -1,049.20 -1,049.20 -1,049.20	-768.13 -768.13 -768.13 -768.13	1,300.33 1,300.33 1,300.33 1,300.33 1,300.33	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
6,000.00 6,100.00 6,200.00 6,300.00 6,400.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	5,640.58 5,740.58 5,840.58 5,940.58 6,040.58	-1,049.20 -1,049.20 -1,049.20 -1,049.20 -1,049.20	-768.13 -768.13 -768.13 -768.13	1,300.33 1,300.33 1,300.33 1,300.33 1,300.33	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
6,500.00 6,600.00 6,700.00 6,800.00 6,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	6,140.58 6,240.58 6,340.58 6,440.58 6,540.58	-1,049.20 -1,049.20 -1,049.20 -1,049.20 -1,049.20	-768.13 -768.13 -768.13 -768.13	1,300.33 1,300.33 1,300.33 1,300.33 1,300.33	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
7,000.00 7,100.00 7,200.00 7,300.00 7,400.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	6,640.58 6,740.58 6,840.58 6,940.58 7,040.58	-1,049.20 -1,049.20 -1,049.20 -1,049.20 -1,049.20	-768.13 -768.13 -768.13 -768.13	1,300.33 1,300.33 1,300.33 1,300.33 1,300.33	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
7,500.00 7,600.00 7,700.00 7,800.00 7,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	7,140.58 7,240.58 7,340.58 7,440.58 7,540.58	-1,049.20 -1,049.20 -1,049.20 -1,049.20 -1,049.20	-768.13 -768.13 -768.13 -768.13	1,300.33 1,300.33 1,300.33 1,300.33 1,300.33	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
8,000.00 8,100.00 8,154.42	0.00 0.00 0.00	0.00 0.00 0.00	7,640.58 7,740.58 7,795.00	-1,049.20 -1,049.20 -1,049.20	-768.13 -768.13 -768.13	1,300.33 1,300.33 1,300.33	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
Mesaverde 8,200.00 8,300.00	0.00 0.00	0.00 0.00	7,840.58 7,940.58	-1,049.20 -1,049.20	-768.13 -768.13	1,300.33 1,300.33	0.00 0.00	0.00 0.00	0.00 0.00
8,400.00 8,500.00 8,600.00 8,700.00 8,800.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	8,040.58 8,140.58 8,240.58 8,340.58 8,440.58	-1,049.20 -1,049.20 -1,049.20 -1,049.20 -1,049.20	-768.13 -768.13 -768.13 -768.13	1,300.33 1,300.33 1,300.33 1,300.33 1,300.33	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
8,900.00 9,000.00 9,100.00 9,200.00 9,300.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	8,540.58 8,640.58 8,740.58 8,840.58 8,940.58	-1,049.20 -1,049.20 -1,049.20 -1,049.20 -1,049.20	-768.13 -768.13 -768.13 -768.13	1,300.33 1,300.33 1,300.33 1,300.33 1,300.33	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
9,400.00 9,459.42	0.00 0.00	0.00 0.00	9,040.58 9,100.00	-1,049.20 -1,049.20	-768.13 -768.13	1,300.33 1,300.33	0.00 0.00	0.00 0.00	0.00 0.00

### **Planning Report**

Database: EDM2003.16 MultiuserDB

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT NAD27 NBU 922-33D Pad Site: Well: NBU 922-33E3AS

Wellbore: ОН Plan 2 Design:

**Local Co-ordinate Reference:** 

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 922-33E3AS

GL 4942' & RKB 18' @ 4960.00ft GL 4942' & RKB 18' @ 4960.00ft

Latitude

True

Minimum Curvature

Planned Survey		PI	an	ne	d	Su	rν	e١
----------------	--	----	----	----	---	----	----	----

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)

**NBU 922-33E3AS PBHL** 

_	
Target	Name

Targets

- hit/miss target Dip Angle Dip Dir. **TVD** +N/-S +E/-W **Northing Easting** - Shape (ft) (ft) (ft) (ft) (°) (°) (ft)

Longitude NBU 922-33E3AS PB 0.00 -768.13 109° 27' 6.930 W 0.00 9,100.00 -1,049.20 611,275.42 2,573,762.85 39° 59' 36.870 N

plan hits target centerCircle (radius 25.00)

**Casing Points** 

Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (in)	Hole Diameter (in)	
2,100.00	2,100.00	Surface Casing		9.625	13.500	

Measured Depth (ft)	Vertical Depth (ft)		Name	Lithology	Dip (°)	Dip Direction (°)
1,196.00	1,196.00	Green River			0.00	
4,748.20	4,408.00	Wasatch			0.00	
8,154.42	7,795.00	Mesaverde			0.00	

### NBU 922-33E3AS

Surface: 1,229' FNL, 1,276' FWL (NW/4NW/4) BHL: 2,278' FNL 508' FWL (SW/4NW/4) Sec. 33 T9S R22E

> Uintah, Utah Mineral Lease: UTU01191A

### ONSHORE ORDER NO. 1

### DRILLING PROGRAM

### 1. – 2. <u>Estimated Tops of Important Geologic Markers</u>: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	Resource
Uinta	0 – Surface	
Green River	1,196'	
Birds Nest	1,534'	Water
Mahogany	2,016'	Water
Wasatch	4,408'	Gas
Mesaverde	6,890'	Gas
MVU2	7,795'	Gas
MVL1	8,409'	Gas
TVD	9,100'	
TD	9,459'	

### 3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program.

### 4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program.

### 5. <u>Drilling Fluids Program</u>:

Please refer to the attached Drilling Program.

### **Evaluation Program:**

Please refer to the attached Drilling Program.

### 7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 9,459' TD (MD), approximately equals 5,599 psi (calculated at 0.59 psi/foot).

Maximum anticipated surface pressure equals approximately 3,384 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

### 8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

### 9. <u>Variances:</u>

Please refer to the attached Drilling Program.

*Onshore Order #2 – Air Drilling Variance* 

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

### **Background**

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

### Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

### Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

### **Conclusion**

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

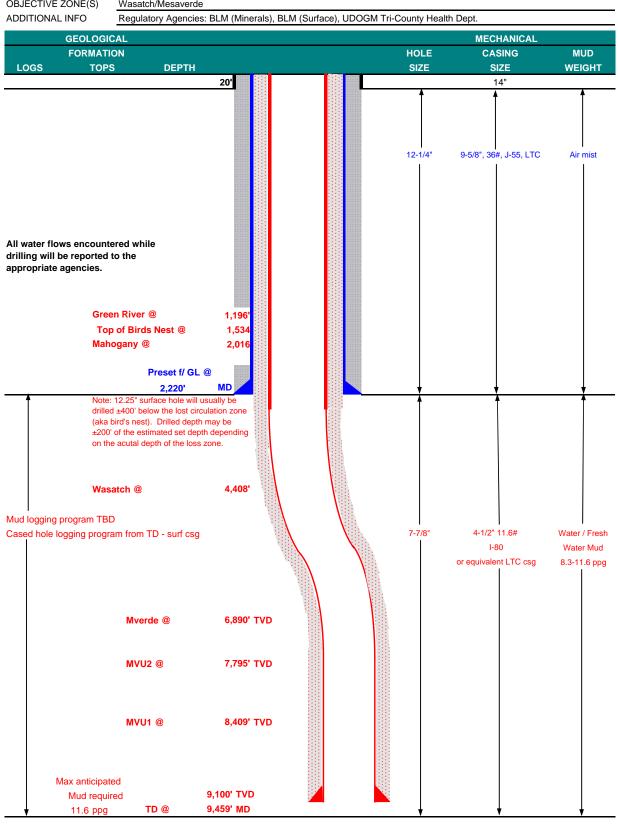
### 10. Other Information:

Please refer to the attached Drilling Program.



### KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE June 16, 2009 NBU 922-33E3AS WELL NAME 9,100' 9,459' MD TVD Natural Buttes COUNTY Uintah FINISHED ELEVATION FIELD STATE Utah 4,942' SURFACE LOCATION NW/4 NW/4 1,229' FNL 1,276' FWL Sec 33 T 9S R 22E Latitude: 39.996419 Longitude: -109.449867 NAD 83 BTM HOLE LOCATION SW/4 NW/4 2,278' FNL 508' FWL Sec 33 T 9S R 22E Latitude: 39.993539 -109.452608 NAD 83 Longitude: OBJECTIVE ZONE(S) Wasatch/Mesaverde





### **KERR-McGEE OIL & GAS ONSHORE LP**

### **DRILLING PROGRAM**

### CASING PROGRAM

								DESIGN FACTORS			
	SIZE	INTI	ERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	0-40'									
								3,520	2,020	453,000	
SURFACE	9-5/8"	0	to	2,220	36.00	J-55	LTC	0.97	1.94	7.21	
								7,780	6,350	201,000	
PRODUCTION	4-1/2"	0	to	9,459	11.60	I-80	LTC	2.23	1.16	2.10	

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP 3,384 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MABHP 5,599 psi

#### **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	380	0%	15.60	1.18
		+ 2% CaCl + 0.25 pps flocele				
		Premium cmt + 2% CaCl				
SURFACE		NOTE: If well will circulate water to sur	face, optio	n 2 will be ເ	ıtilized	
Option 2 LEAD	1,720'	65/35 Poz + 6% Gel + 10 pps gilsonite	410	35%	12.60	1.81
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	180	35%	15.60	1.18
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION LEAD	3,899'	Premium Lite II + 3% KCI + 0.25 pps	370	40%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,560'	50/50 Poz/G + 10% salt + 2% gel	1,360	40%	14.30	1.31
		+ 0.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### **FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe						
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.						

#### ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

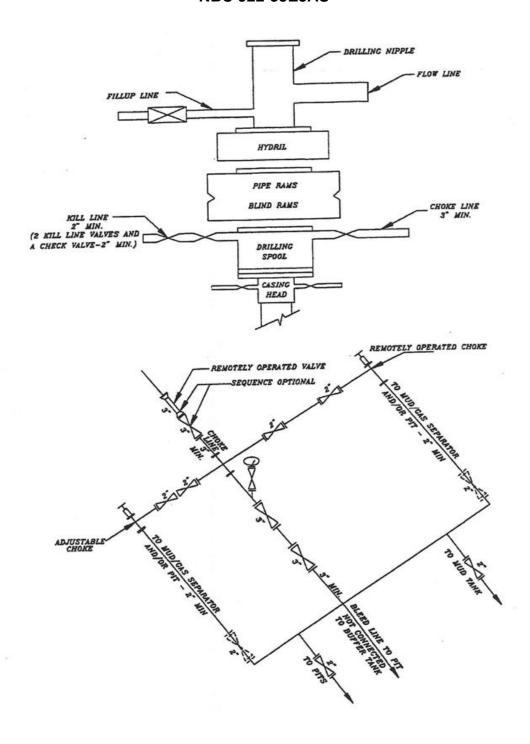
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.	
Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.	

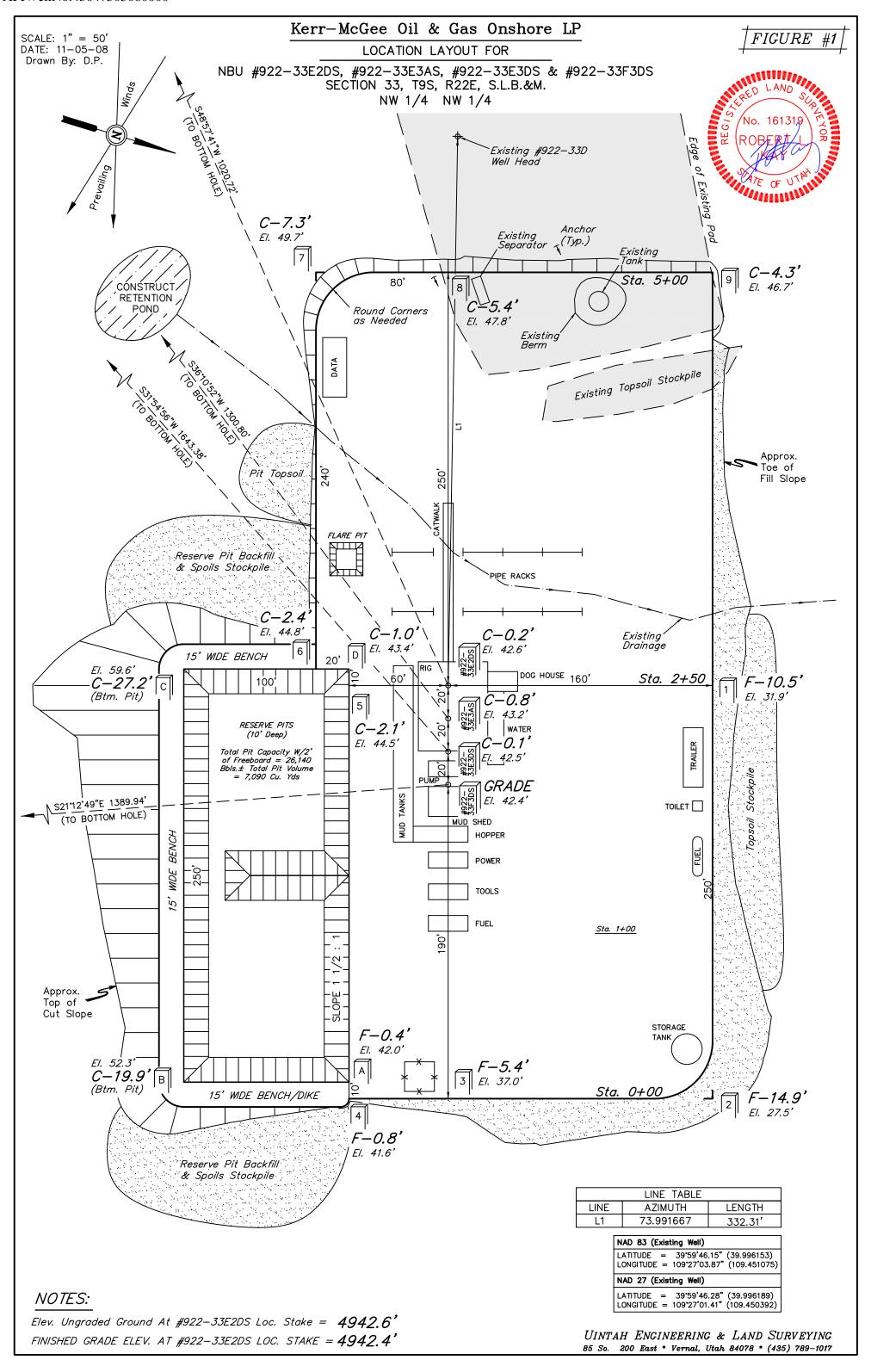
	Most rigs have PVT System f	or mud monitoring. If no PVT is available, visual monitoring w	Il be utilized.	
DRILLING	ENGINEER:		DATE:	
		John Huycke / Emile Goodwin		
DRILLING	SUPERINTENDENT:		DATE:	
		John Merkel / Lovel Young		

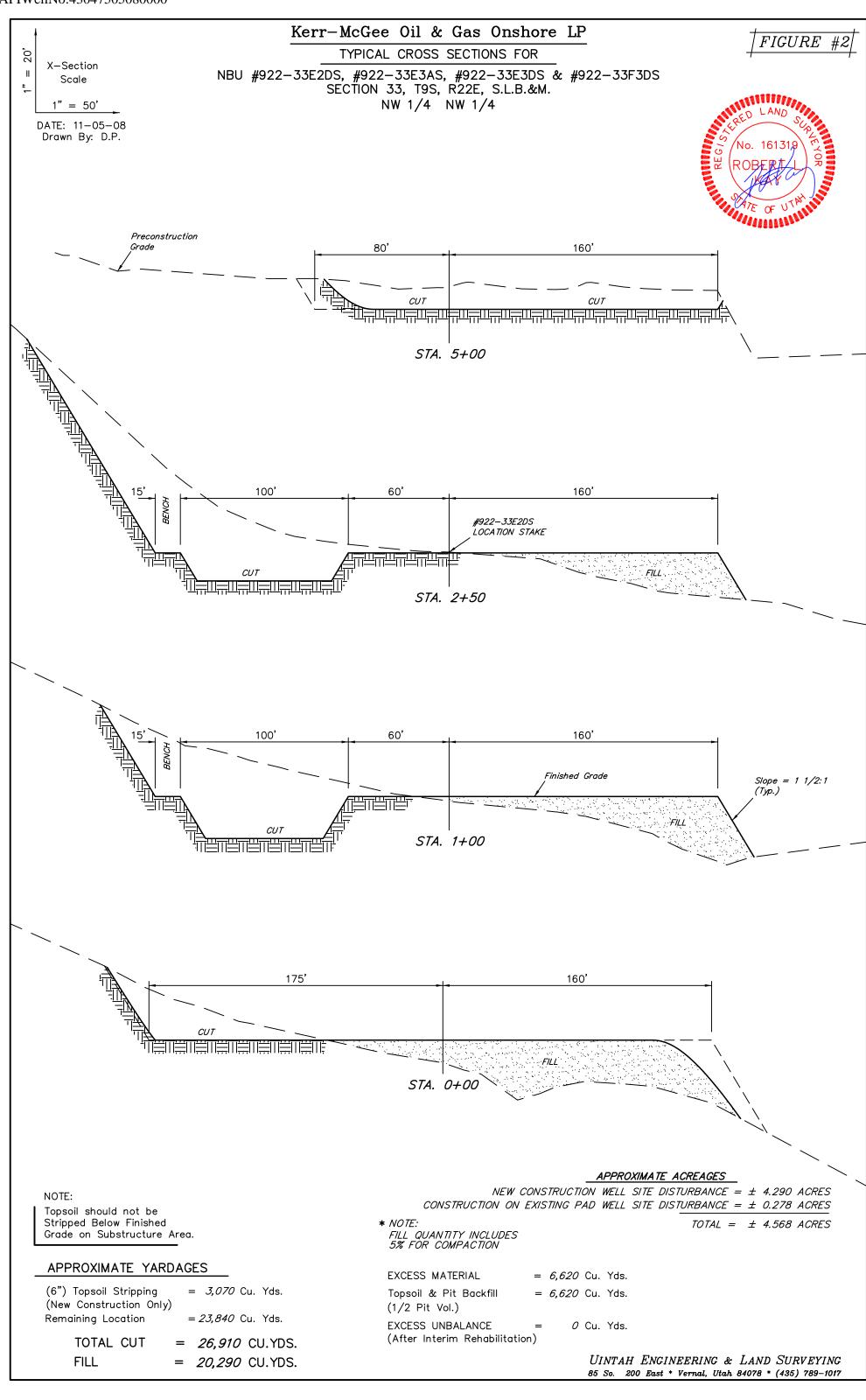
<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

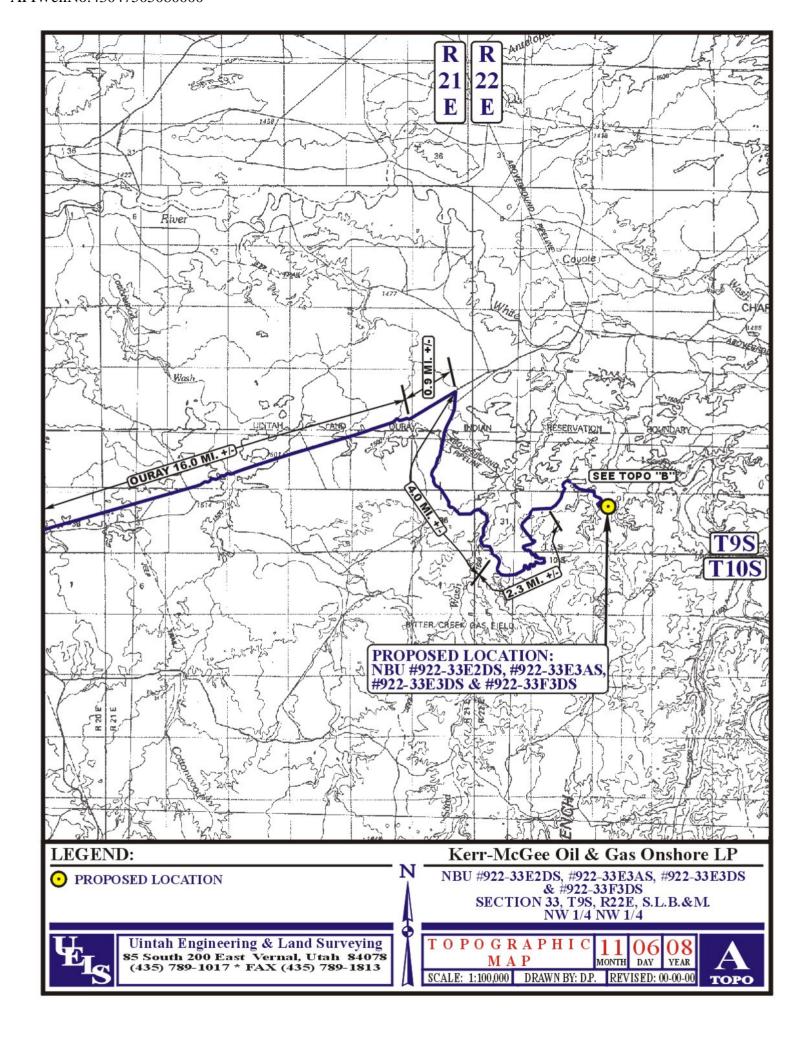
### EXHIBIT A NBU 922-33E3AS

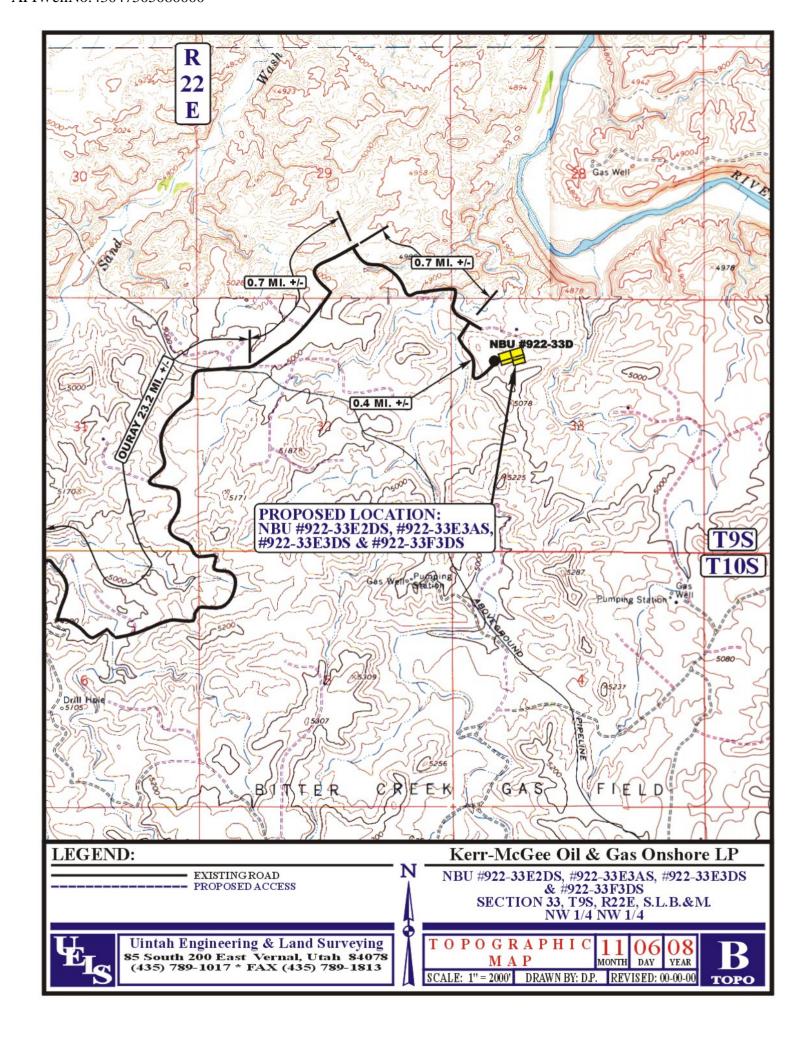


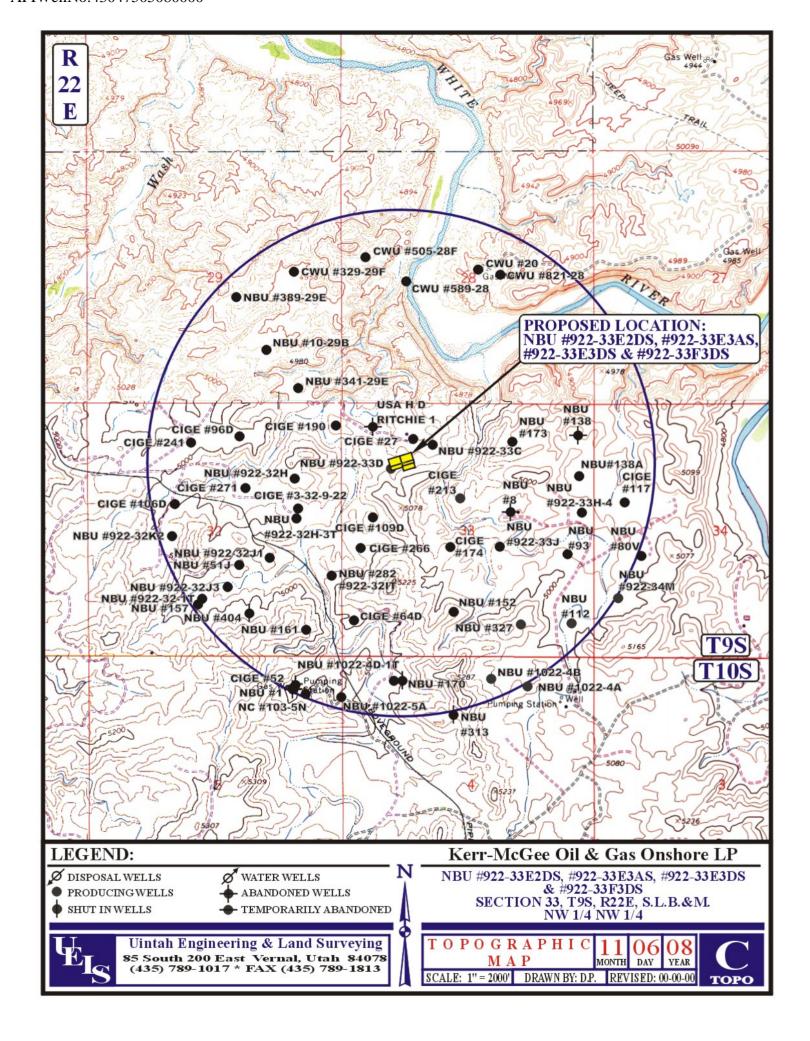
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

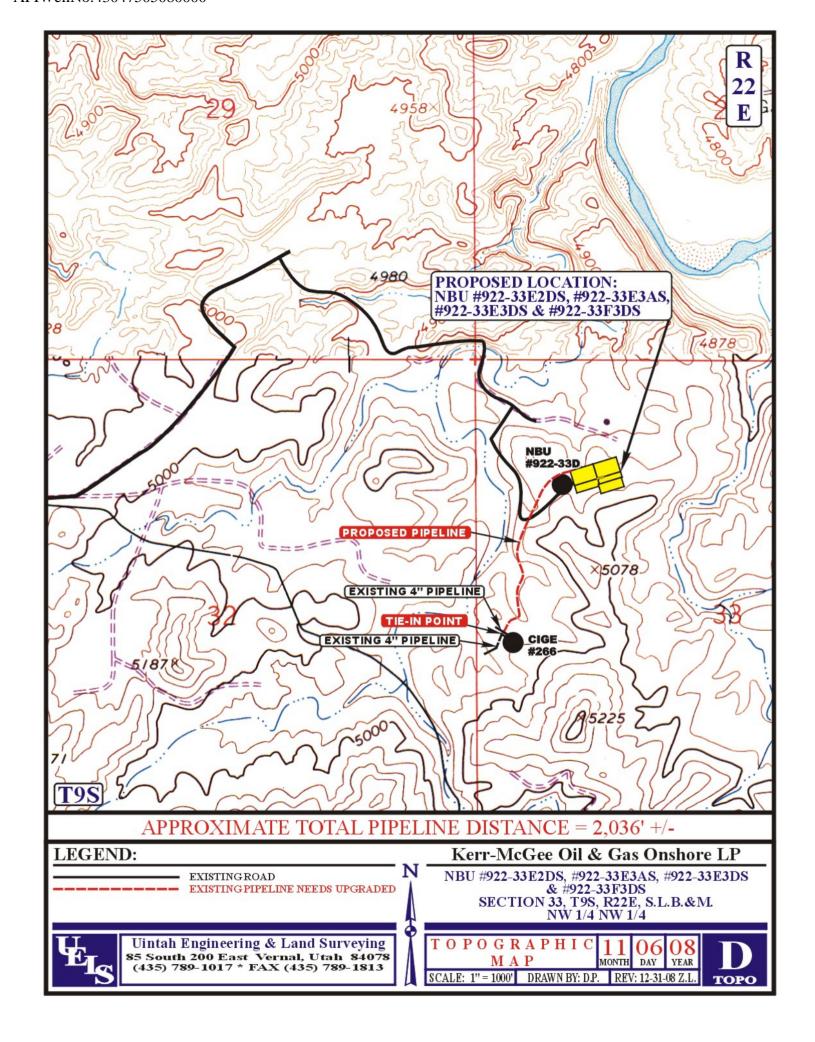












# Kerr-McGee Oil & Gas Onshore LP

NBU #922-33E2DS, #922-33E3AS, #922-33E3DS & #922-33F3DS

LOCATED IN UINTAH COUNTY, UTAH SECTION 33, T9S, R22E, S.L.B.&M.

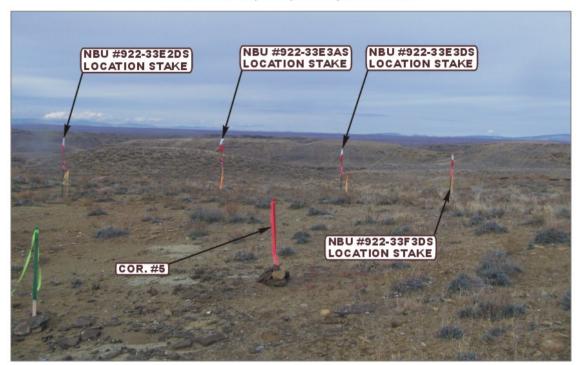


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: NORTHERLY



PHOTO: VIEW OF EXISTING PAD

CAMERA ANGLE: EASTERLY



LOCATION				рното	
TAKEN BY: L.K.	DRAWN BY: D.P	. REV	ISED: (	00-00-00	

# Kerr-McGee Oil & Gas Onshore LP

NBU #922-33E2DS, #922-33E3AS, #922-33E2DS & #922-33F3DS SECTION 33, T9S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88: EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 6.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND SOUTHEASTERLY, THEN **EASTERLY DIRECTION** PROCEED IN Α APPROXIMATELY 5.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST: RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 3.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; **PROCEED** SOUTHWESTERLY. **TURN** RIGHT AND IN Α SOUTHEASTERLY DIRECTION APPROXIMATELY 4.0 MILES TO JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST: TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY, THEN NORTHERLY DIRECTION APPROXIMATELY 2.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST: TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST: TURN RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 0.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 0.4 MILES PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 56.0 MILES.

### **NBU 922-33E2DS**

Surface: 1,234' FNL, 1,257' FWL (NW/4NW/4) BHL: 1,904' FNL 487' FWL (SW/4NW/4)

### **NBU 922-33E3AS**

Surface: 1,229' FNL, 1,276' FWL (NW/4NW/4) BHL: 2,278' FNL 508' FWL (SW/4NW/4)

### **NBU 922-33E3DS**

Surface: 1,223' FNL, 1,295' FWL (NW/4NW/4) BHL: 2,617' FNL 426' FWL (SW/4NW/4)

### **NBU 922-33F3DS**

Surface: 1,217' FNL, 1,315' FWL (NW/4NW/4) BHL: 2,513' FNL 1,817' FWL (SE/4NW/4)

Pad: NBU 922-33D

Uintah, Utah Mineral Lease: UTU01191A

### ONSHORE ORDER NO. 1

### MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) documents. An NOS was submitted on March 17, 2009 showing the surface locations in NW/4 NW/4 of Section 33 T9S R22E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BLM-Vernal Field Office.

An on-site meeting was held on March 30, 2009. Present were:

- Verlyn Pindell, Dave Gordon BLM;
- Kolby Kay 609 Consulting, LLC
- Tony Kazeck, Raleen White, Sheila Upchego, Grizz Oleen, Hal Blanchard, Charles Chase and Jeff Samuels Kerr-McGee.

### **Directional Drilling:**

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

### NBU 922-33E2DS / 33E3AS/ 33E3DS/ 33F3DS

Page 2

### 1. Existing Roads:

- A) Refer to Topo Map A for directions to the location.
- B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.
- C) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

### 2. Planned Access Roads:

See MDP for additional details on road construction.

No new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

### 3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

### 4. <u>Location of Existing and Proposed Facilities:</u>

See MDP for additional details on Existing and Proposed Facilities.

### 5. <u>Location and Type of Water Supply</u>:

See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, Application number 53617. Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

### **Source of Construction Materials:**

See MDP for additional details on Source of Construction Materials.

### 7. <u>Methods of Handling Waste Materials</u>:

See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E

NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

### NBU 922-33E2DS / 33E3AS/ 33E3DS/ 33F3DS

### 8. Ancillary Facilities:

See MDP for additional details on Ancillary Facilities.

None are anticipated.

### **9. Well Site Layout:** (See Location Layout Diagram)

See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

### 10. Plans for Reclamation of the Surface:

See MDP for additional details on Plans for Reclamation of the Surface.

### 11. <u>Surface/Mineral Ownership:</u>

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

### 12. Other Information:

See MDP for additional details on Other Information.

### 13. Lessee's or Operators' Representative & Certification:

Kathy Schneebeck Dulnoan Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6007 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720-929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

June 16, 2009

Date

### Kerr-McGee Oil & Gas Onshore LP



1099 18th Street, Suite 1800 Denver, CO 80202-1918 P.O. Box 173779 Denver, CO 80217-3779 720-929-6000

April 8, 2009

Mrs. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 922-33E3AS

T9S-R22E

Section 33: SWNW

Surface: 1229' FNL, 1276' FWL Bottom Hole: 2278' FNL, 508' FWL

Uintah County, Utah

Dear Mrs. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 922-33E3AS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance.
   Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Jason K. Rayburn Landman

APIWeIINo:43047505080000°

### CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 46 PROPOSED WELL LOCATIONS (T9S, R22E, SEC. 29, 30, 31, 32, 33, 34; T10S, R22E, SEC. 4) UINTAH COUNTY, UTAH

By:

Nicole Shelnut

Prepared For:

Bureau of Land Management
Vernal Field Office
and
State of Utah
School & Institutional Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP 1368 South 1200 East Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc. P.O. Box 219 Moab, Utah 84532

MOAC Report No. 08-356

February 26, 2009

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office Archaeological Survey Permit No. 117

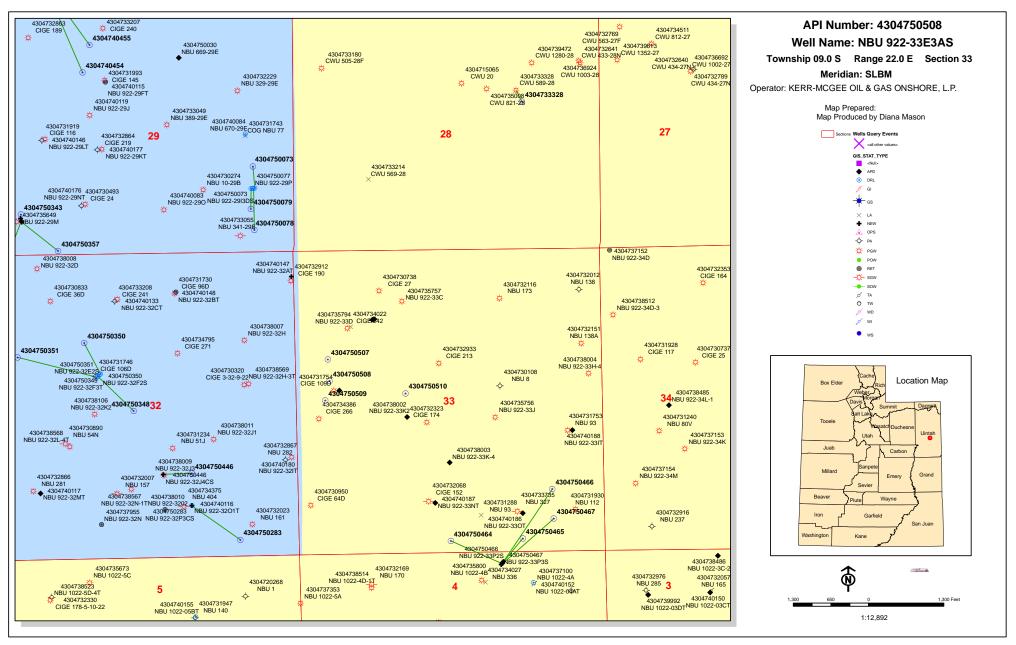
# Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Onsite Changes to "NBU #922-33E2DS, E3AS, E3DS, & F3DS" (Sec. 33, T 9S, R 22 E) & "NBU #1022-5N2, #1022-5E4BS & 5E4CS, & #1022-5J2S & 5F2S" (Sec. 5 & 8, T 10 S, R 22 E)

> Archy Bench Topographic Quadrangle Uintah County, Utah

March 12, 2009

Prepared by Stephen D. Sandau Paleontologist for Intermountain Paleo-Consulting P. O. Box 1125 Vernal, Utah 84078



# **United States Department of the Interior**

# BUREAU OF LAND MANAGEMENT Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

June 26, 2009

#### Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 Plan of Development Natural Buttes Unit Uintah

County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION (Proposed PZ WASATCH-MESA VERDE) 43-047-50491 NBU 1022-3L3DS Sec 03 T10S R22E 1561 FSL 0415 FWL BHL Sec 03 T10S R22E 1517 FSL 0497 FWL 43-047-50492 NBU 1022-3L4BS Sec 03 T10S R22E 1571 FSL 0432 FWL BHL Sec 03 T10S R22E 1774 FSL 0712 FWL 43-047-50493 NBU 1022-3M1DS Sec 03 T10S R22E 1551 FSL 0397 FWL BHL Sec 03 T10S R22E 0987 FSL 1229 FWL 43-047-50494 NBU 1022-3M2DS Sec 03 T10S R22E 1541 FSL 0379 FWL BHL Sec 03 T10S R22E 0907 FSL 0541 FWL 43-047-50507 NBU 922-33E2DS Sec 33 T09S R22E 1234 FNL 1257 FWL BHL Sec 33 T09S R22E 1904 FNL 0487 FWL 43-047-50508 NBU 922-33E3AS Sec 33 T09S R22E 1229 FNL 1276 FWL BHL Sec 33 T09S R22E 2278 FNL 0508 FWL 43-047-50509 NBU 922-33E3DS Sec 33 T09S R22E 1223 FNL 1295 FWL BHL Sec 33 T09S R22E 2617 FNL 0426 FWL 43-047-50510 NBU 922-33F3DS Sec 33 T09S R22E 1217 FNL 1315 FWL BHL Sec 33 T09S R22E 2513 FNL 1817 FWL This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit

Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:6-26-09

### WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED:	6/19/2009		API NO. ASSIGNED:	43047505080000
WELL NAME:	NBU 922-33E3AS			
OPERATOR:	KERR-MCGEE OIL & 0	GAS ONSHORE, L.P. (N2995)	PHONE NUMBER:	720 929-6156
CONTACT:	Danielle Piernot			
PROPOSED LOCATION:	NWNW 33 090S 220B	E	Permit Tech Review:	
SURFACE:	1229 FNL 1276 FWL		Engineering Review:	
воттом:	2278 FNL 0508 FWL		Geology Review:	
COUNTY:	UINTAH			
LATITUDE:	39.99643		LONGITUDE:	-109.44909
<b>UTM SURF EASTINGS:</b>	632398.00		NORTHINGS:	4428303.00
FIELD NAME:	NATURAL BUTTES			
LEASE TYPE:	1 - Federal			
LEASE NUMBER:	UTU 01191A	PROPOSED PRODUCING FORM	ATION(S): WASATCH-ME	SA VERDE
SURFACE OWNER:	1 - Federal		COALBED METHANE:	NO
RECEIVED AND/OR REVIE	:WED:	LOCATION AND SITING	:	
<b>₽</b> PLAT		R649-2-3.		
<b>Bond:</b> FEDERAL - WYBO	000291	Unit: NATURAL BUTTE	ES	
Potash		R649-3-2. General		
Oil Shale 190-5				
Oil Shale 190-3		R649-3-3. Exception	on	
Oil Shale 190-13		Drilling Unit		
<b>✓</b> Water Permit: Permit	#43-8496	Board Cause No:	Cause 173-14	
RDCC Review:		Effective Date: 1	2/2/1999	
Fee Surface Agreeme	nt	Siting: 460' fr u b	dry & uncomm. tract	
✓ Intent to Commingle		<b>№</b> R649-3-11. Directi	onal Drill	
Commingling Approved	i			
Comments: Presite Co	ompleted			

3 - Commingling - ddoucet 4 - Federal Approval - dmason 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason Stipulations:

API Well No: 43047505080000



## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER

Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

## Permit To Drill

\*\*\*\*\*\*

Well Name: NBU 922-33E3AS
API Well Number: 43047505080000
Lease Number: UTU 01191A
Surface Owner: FEDERAL

**Approval Date:** 7/15/2009

## **Issued to:**

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

## **Authority:**

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

## **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

## **Commingle:**

In accordance with Board Cause No. 173-14 commingling the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

## General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

## **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

## **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov

## **Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

**Approved By:** 

Gil Hunt

Associate Director, Oil & Gas

Die Hunt

	FORM 9						
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	G	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A				
SUNDR	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
Do not use this form for propos bottom-hole depth, reenter plu DRILL form for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-33E3AS				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSI	HORE, L.P.		9. API NUMBER: 43047505080000				
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th St	PHONE I treet, Suite 600, Denver, CO, 80217 3779	NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1229 FNL 1276 FWL			COUNTY: UINTAH				
Qtr/Qtr: NWNW Section: 33	P, RANGE, MERIDIAN: 3 Township: 09.0S Range: 22.0E Meridian: S		STATE: UTAH				
11. CHEC	CK APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPORT,	OR OTHER DATA				
TYPE OF SUBMISSION		TYPE OF ACTION					
	☐ ACIDIZE ☐	ALTER CASING	CASING REPAIR				
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME				
7/15/2010	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE				
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	■ NEW CONSTRUCTION				
Date of Work Completion:	☐ OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK				
	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION				
SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION ☐	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON				
	☐ TUBING REPAIR ☐	VENT OR FLARE	WATER DISPOSAL				
☐ DRILLING REPORT	☐ WATER SHUTOFF ☐	SI TA STATUS EXTENSION	✓ APD EXTENSION				
Report Date:	☐ WILDCAT WELL DETERMINATION ☐	OTHER	OTHER:				
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.  Approved by the Utah Division of Oil, Gas and Mining  Date: July 14, 2010  By:							
NAME (PLEASE PRINT) Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	TITLE Regulatory Analyst					
SIGNATURE N/A		<b>DATE</b> 7/14/2010					



## The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

## Request for Permit Extension Validation Well Number 43047505080000

**API:** 43047505080000 Well Name: NBU 922-33E3AS

Location: 1229 FNL 1276 FWL QTR NWNW SEC 33 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 7/15/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that requ

information as submitted in the previously approved application to drill, remains valid and does not uire revision. Following is a checklist of some items related to the application, which should be verified.
<ul> <li>If located on private land, has the ownership changed, if so, has the surface agreement been updated?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>
• Has there been any unit or other agreements put in place that could affect the permitting or operatio of this proposed well?  Yes No
• Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?   Yes  No
• Has the approved source of water for drilling changed?   Yes  No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well?   Yes   No Utah Division of Oil, Gas and Mining
nature: Danielle Piernot Date: 7/14/2010
Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORDALE: July 14, 2010
00000

Sig

Sundry Number: 15877 API Well Number: 43047505080000

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A
SUNDF	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	sals to drill new wells, significantly deepen e ugged wells, or to drill horizontal laterals. Use		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-33E3AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047505080000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHONE street, Suite 600, Denver, CO, 80217 3779	E NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1229 FNL 1276 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWNW Section: 3:	IP, RANGE, MERIDIAN: 3 Township: 09.0S Range: 22.0E Meridian: S	5	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT	, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	☐ ACIDIZE ☐	ALTER CASING	CASING REPAIR
Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME
7/15/2011	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT	☐ DEEPEN ☐	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
_	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL
DRILLING REPORT	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:
12 DESCRIBE BRODOSED OF CO	DMPLETED OPERATIONS. Clearly show all pertin	nent details including dates, denths	,
l .	as Onshore, L.P. (Kerr-McGee)		•
extension to this A	APD for the maximum time allow	wed. Please contact the	
undersigned	with any questions and/or com	ments. Thank you.	Approved by the Utah Division of
			Oil, Gas and Mining
			_
		D	Date: 06/20/2011
		_	R nocally
			iy: Dree X
			20 Maria (1)
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE	
Gina Becker	720 929-6086	Regulatory Analyst II	
SIGNATURE N/A		<b>DATE</b> 6/14/2011	

Sundry Number: 15877 API Well Number: 43047505080000



## The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

## Request for Permit Extension Validation Well Number 43047505080000

**API:** 43047505080000 **Well Name:** NBU 922-33E3AS

Location: 1229 FNL 1276 FWL QTR NWNW SEC 33 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued: 7/15/2009** 

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

<ul> <li>If located on private land, has the ownership changed, if so, has the surface agreement been updated?</li> <li>Yes </li> <li>No</li> </ul>
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes No</li> </ul>
• Has the approved source of water for drilling changed?   Yes  No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well?   Yes   No
Data (//4/2011

**Signature:** Gina Becker **Date:** 6/14/2011

Title: Regulatory Analyst II Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Sundry Number: 26526 API Well Number: 43047505080000

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIT		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A
SUNDF	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	oposals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-33E3AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047505080000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	h Street, Suite 600, Denver, CO, 8021	<b>PHONE NUMBER:</b> 7 3779 720 929-	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1229 FNL 1276 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 33 Township: 09.0S Range: 22.0E Mer	ridian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
7	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
7/15/2012	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
Date of Work Completion.	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:
l .	I COMPLETED OPERATIONS. Clearly show Sas Onshore, L.P. (Kerr-McG		TOTAL STATE OF THE
I .	APD for the maximum time with any questions and/or c		Utah Division of Oil, Gas and Mining
			Date: June 07, 2012
			By: Bacylll
NAME (DI EASE DRINT)	DUONE NUM	DED TITLE	
NAME (PLEASE PRINT) Jenn Hawkins	<b>PHONE NUME</b> 720 929-6247	BER TITLE Staff Operations Specialist	III
SIGNATURE N/A		<b>DATE</b> 6/5/2012	

Sundry Number: 26526 API Well Number: 43047505080000



## The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

## Request for Permit Extension Validation Well Number 43047505080000

API: 43047505080000 Well Name: NBU 922-33E3AS

Location: 1229 FNL 1276 FWL QTR NWNW SEC 33 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 7/15/2009

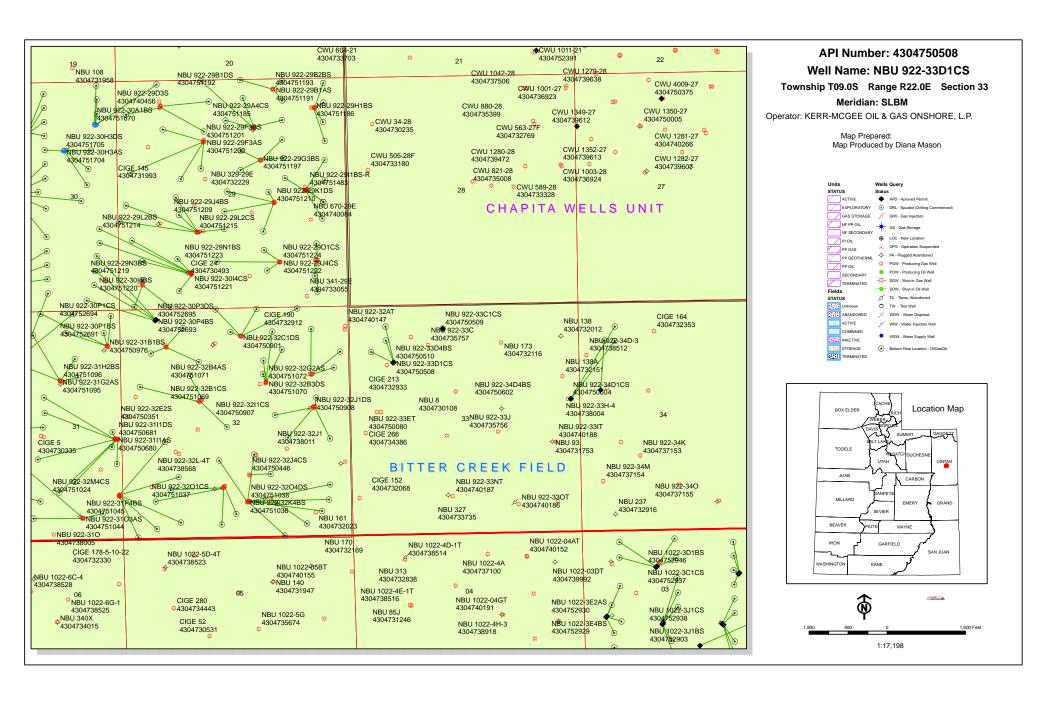
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

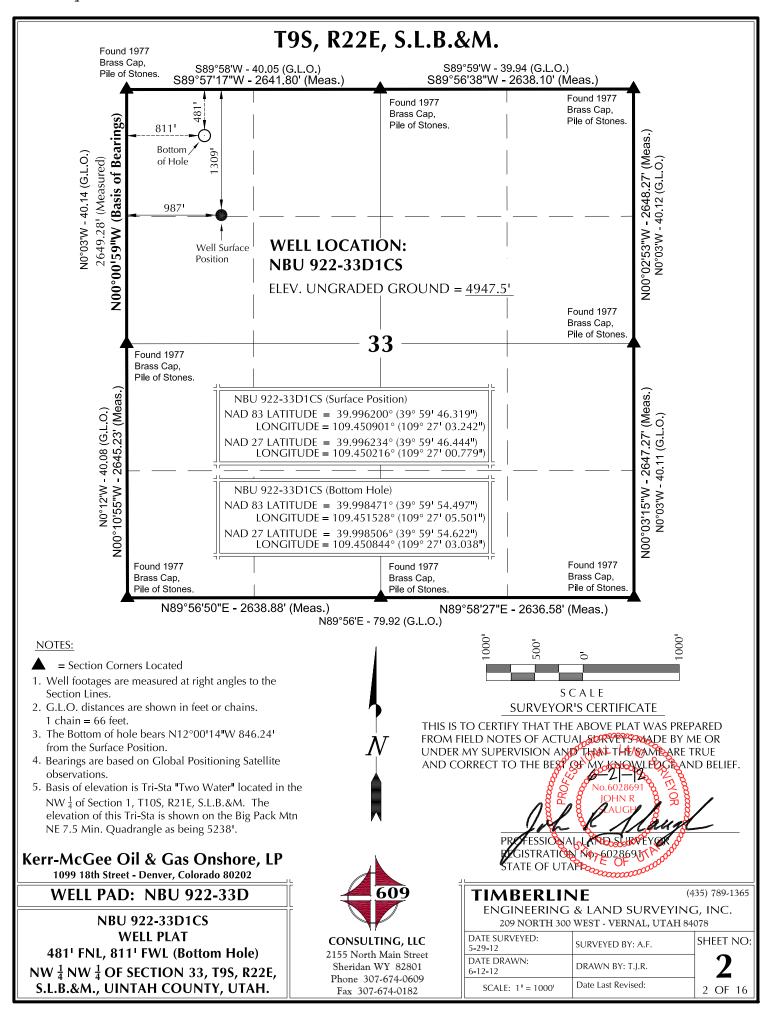
- mig is a silvenial or semi-remained to the approximent, inner silvenial as remained.
• If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?</li> <li>Yes</li> <li>No</li> </ul>
• Has the approved source of water for drilling changed?   Yes  No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well?   Yes   No
nature: Jenn Hawkins Date: 6/5/2012

Sig

Title: Staff Operations Specialist III Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

	STATE OF UTAH		FORM 9					
ı	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A					
SUNDR	SUNDRY NOTICES AND REPORTS ON WELLS							
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES							
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 922-33D1CS							
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047505080000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1309 FNL 0987 FWL			COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNW Section:	HIP, RANGE, MERIDIAN: 33 Township: 09.0S Range: 22.0E Merio	dian: S	STATE: UTAH					
11. CHEC	K APPROPRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPOR	₹T, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
The operator is requoriginally approx 922-33E3AS to NBI Changes (New FNL/1276 FWL TFNL/508 FWL To = Drilling Program Att Wellbore Diagram (Directional Drilling)	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  CHANGE WELL STATUS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly show all Juesting the approval of the followed APD: 1. Change the Well U 922-33D1CS \ 2. Surface & Plat Package is Attached) \ a. To = 1309 FNL/987 FWL \ b. 481 FNL/811 FWL \ 3. Propose (ached) \ 4. Surface Hole Size Attached) \ 5. Change to Dire Survey Attached) \ 6. Surface tached) \ 7. Updated Topos & Survey Attached) \ 6. Surface tached) \ 7. Updated Topos & Survey Attached Topos & Survey	CASING REPAIR  CHANGE WELL NAME  CONVERT WELL TYPE  NEW CONSTRUCTION  PLUG BACK  RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL  APD EXTENSION  OTHER:  Depths, volumes, etc.  Approved by the Utah Division of Oil, Gas and Mining  Date: December 18, 2012  By:						
NAME (PLEASE PRINT) Gina Becker	<b>PHONE NUMBE</b> 720 929-6086	R TITLE Regulatory Analyst II						
SIGNATURE N/A		<b>DATE</b> 12/12/2012						





## Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 922-33D WELLS – NBU 922-33C1CS, NBU 922-33D1CS, NBU 922-33D4BS & NBU 922-33D3DS Section 33, T9S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.7 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 2.6 miles to a third Class D County Road to the east. Exit left and proceed in an easterly, then northeasterly, then easterly direction along the third Class D County Road approximately 2.2 miles to a fourth Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the fourth Class D County Road approximately 0.7 miles to a service road to the southeast. Exit right and proceed in a southeasterly direction along the service road approximately 0.8 miles to a second service road to the south. Exit right and proceed in a southerly, then easterly direction along the second service road approximately 0.3 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 48.9 miles in a southerly direction.

**SHEET 16 OF 16** 

NBU 922-33E Pad Drilling Program

1 of 6

## Kerr-McGee Oil & Gas Onshore. L.P.

NBU 922-33D1CS

Surface: 1309 FNL / 987 FWL NWNW BHL: 481 FNL / 811 FWL NWNW

Section 33 T9S R22E

Unitah County, Utah Mineral Lease: UTU-01191A

## **ONSHORE ORDER NO. 1**

## **DRILLING PROGRAM**

## 1. & 2.a <u>Estimated Tops of Important Geologic Markers</u>: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,235'	
Birds Nest	1,596'	Water
Mahogany	1,953'	Water
Wasatch	4,481'	Gas
Mesaverde	6,984'	Gas
Sego	9,166'	Gas
Castlegate	9,213'	Gas
Blackhawk	9,669'	Gas
TVD =	10,269'	
TD =	10,398'	

2.c Kerr McGee Oil & Gas Onshore LP (Kerr McGee) may elect to drill to (i) the Blackhawk formation (part of the Mesaverde Group), (ii) to a shallower depth within the Mesaverde Group, or (iii) to the Wasatch Formation. If Kerr McGee drills to the Blackhawk formation, please refer to Blackhawk as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr-McGee drills to a shallower depth in the Mesaverde Group or to the Wasatch Formation, please refer to the attached Wasatch/Mesaverde Drilling Program which includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the shallower formations.

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

NBU 922-33E Pad Drilling Program 2 of 6

## 4. Proposed Casing & Cementing Program:

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

## 5. <u>Drilling Fluids Program:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

## 6. Evaluation Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

## 7. **Abnormal Conditions:**

## 7.a Blackhawk (Part of Mesaverde Group)

Maximum anticipated bottom hole pressure calculated at 10269' TVD, approximately equals 6,572 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,299 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

## 7.b Wasach Formation/Mesaverde Group

Maximum anticipated bottom hole pressure calculated at 9166' TVD, approximately equals 5,591 psi (0.61 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,599 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

## 8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

## 9. <u>Variances:</u>

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

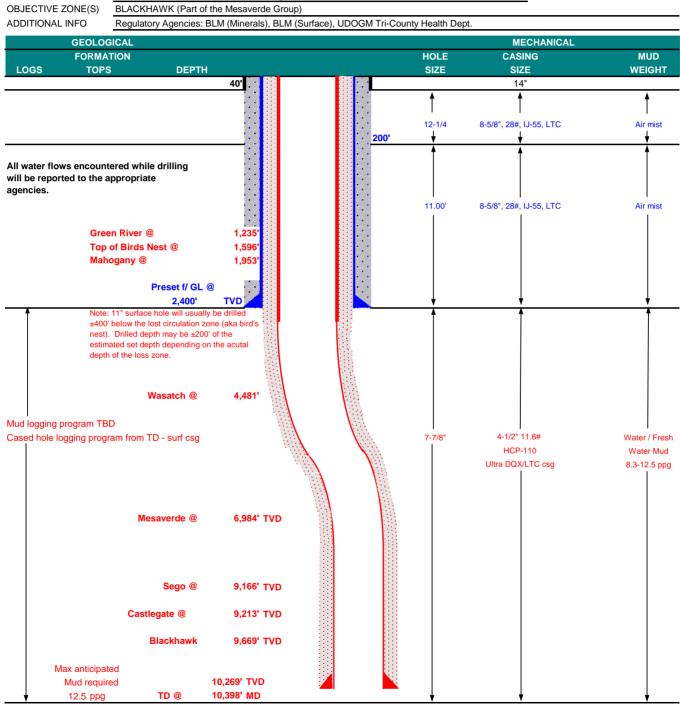
## 10. Other Information:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



# KERR-McGEE OIL & GAS ONSHORE LP Blackhawk Drilling Program

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP					DATE	November	7, 2012			
WELL NAME NBU 922-33D1CS						10,269'	TVD	10,398' MD		
FIELD Natural Buttes COUNTY Uintah STATE			TATE Utal	h	FINIS	HED ELEVATION _	4,945'			
SURFACE LOCATION	NWNW	1309 FNL	987 FWL	Sec 33	T 9S	R 22E				
	Latitude:	39.996200	Longitude:	-109.450	0901		NAD 83			
BTM HOLE LOCATION	NWNW	481 FNL	811 FWL	Sec 33	T 9S	R 22E				
	Latitude:	39.998471	Longitude:	-109.45	1528		NAD 83			
OBJECTIVE ZONE(S)	BLACKHAWK	BLACKHAWK (Part of the Mesaverde Group)								
ADDITIONAL INFO	Regulatory Age	Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.								





# KERR-McGEE OIL & GAS ONSHORE LP Blackhawk Drilling Program

CASING PROGRAM									DESIGN FACTORS			
										LTC	DQX	
	SIZE	INT	ERVA	L	WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION	
CONDUCTOR	14"	C	)-40'									
								3,390	1,880	348,000	N/A	
SURFACE	8-5/8"	0	to	2,400	28.00	IJ-55	LTC	2.24	1.67	5.91	N/A	
								10,690	8,650	279,000	367,174	
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.30		3.76	
	4-1/2"	5,000	to	10,398'	11.60	HCP-110	LTC	1.19	1.30	5.51		

**Surface Casing:** 

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

#### **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	Ī	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water to	surface, opt	ion 2 will be	utilized		
Option 2 LEAD	1,900'	Premium cmt + 16% Gel + 10 pps gilsonite	280	35%	12.00		2.86
		+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps					
TAIL	500'	Premium cmt + 2% CaCl	170	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	3,978'	Premium Lite II +0.25 pps	310	35%	12.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	6,420'	50/50 Poz/G + 10% salt + 2% gel	1,520	35%	14.30		1.31
		+ 0.1% R-3					

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

## FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

**PRODUCTION** 

Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

## ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

IF extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it.

DRILLING ENGINEER:

Nick Spence / Danny Showers / Travis Hansell

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE:

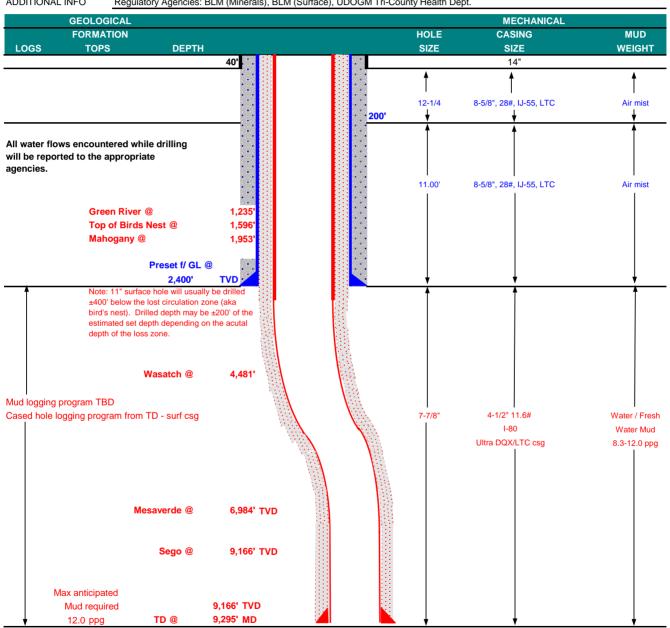
DATE:

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained



# KERR-McGEE OIL & GAS ONSHORE LP Wasatch/Mesaverde Drilling Program

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP						Novembe	er 7, 2012		
WELL NAME NBU 922-33D1CS					TD	9,166'	TVD	9,295' MD	
FIELD Natural Buttes COUNTY Uintah STATE Utah			h	FINI	SHED ELEVATION_	4,945'			
SURFACE LOCATION	NWNW	1309 FNL	987 FWL	Sec 33	T 9S	R 22E			
	Latitude:	39.996200	Longitude:	-109.45	0901		NAD 83		
BTM HOLE LOCATION	NWNW	481 FNL	811 FWL	Sec 33	T 9S	R 22E			
	Latitude:	39.998471	Longitude:	-109.45	1528		NAD 83		
OBJECTIVE ZONE(S)	Wasatch Formation/Mesaverde Group								
ADDITIONAL INFO Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.									



DESIGN EACTORS



KERR-McGEE OIL & GAS ONSHORE LP
Wasatch/Mesaverde Drilling Program

CASING PROGRAM

CONDUCTOR

PRODUCTION

**SURFACE** 

<u></u>										
									LTC	DQX
SIZE	INT	ERVA	L	WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION
14"	(	0-40'								
							3,390	1,880	348,000	N/A
8-5/8"	0	to	2,400	28.00	IJ-55	LTC	2.24	1.67	5.91	N/A
							7,780	6,350		267,035
4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.11		3.03
							7,780	6,350	223,000	
4-1/2"	5,000	to	9,295'	11.60	I-80	LTC	1.11	1.11	5.48	

**Surface Casing:** 

(Burst Assumptions: TD = 12.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.61 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

#### **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH <sup>*</sup>	Ī	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water to	surface, opt	ion 2 will be	utilized		
Option 2 LEAD	1,900'	Premium cmt + 16% Gel + 10 pps gilsonite	280	35%	12.00		2.86
		+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	3,975'	Premium Lite II +0.25 pps	310	35%	12.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	5,320'	50/50 Poz/G + 10% salt + 2% gel	1,260	35%	14.30		1.31
		+ 0.1% R-3					

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### **FLOAT EQUIPMENT & CENTRALIZERS**

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Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

Kenny Gathings / Lovel Young

F extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it

DRILLING ENGINEER:		DATE:	
	Nick Spence / Danny Showers / Travis Hansell	•	
DRILLING SUPERINTENDENT:		DATE:	

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

Sundry Number: 33043 APTojete LUTANututota (feet) NAD27,52050 82N000

Scientific Drilling

+N/-S 0.00

9166.00

plan hits ta

10269.00

-750

750

1500

Vertical Section at 348.00° (1500 ft/in)

2250

3750

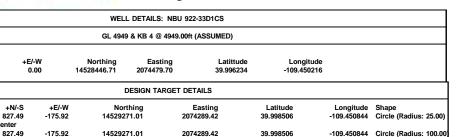
SEGO

PBHL

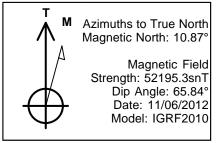
Site: NBU 922-33D PAD Well: NBU 922-33D1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY





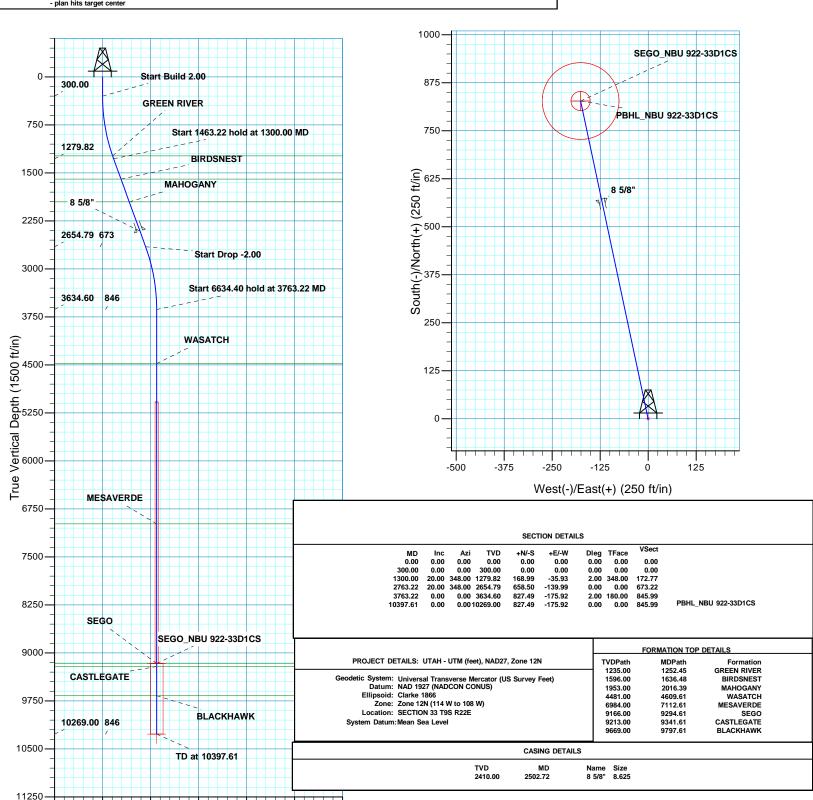


Plan: PLAN #1 PRELIMINARY (NBU 922-33D1CS/OH)

Date: 14:01, November 06 2012

Created By: RobertScott

REC





## **US ROCKIES REGION PLANNING**

UTAH - UTM (feet), NAD27, Zone 12N NBU 922-33D PAD NBU 922-33D1CS

ОН

Plan: PLAN #1 PRELIMINARY

## **Standard Planning Report**

**06 November, 2012** 





## **SDI** Planning Report



Database: EDM5000-RobertS-Local

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-33D PAD

 Well:
 NBU 922-33D1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-33D1CS

GL 4949 & KB 4 @ 4949.00ft (ASSUMED) GL 4949 & KB 4 @ 4949.00ft (ASSUMED)

True

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: Zone 12N (114 W to 108 W)

System Datum: Mean Sea Level

Site NBU 922-33D PAD, SECTION 33 T9S R22E

Northing: 14,528,452.32 usft Site Position: Latitude: 39.996249 From: Lat/Long Easting: 2,074,488.01 usft Longitude: -109.450186 **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 1.00 9 13.200 in

Well NBU 922-33D1CS, 1309 FNL 987 FWL

 Well Position
 +N/-S
 -5.46 ft
 Northing:
 14,528,446.71 usft
 Latitude:
 39.996234

 +E/-W
 -8.40 ft
 Easting:
 2,074,479.70 usft
 Longitude:
 -109.450216

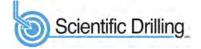
Position Uncertainty 0.00 ft Wellhead Elevation: Ground Level: 4,945.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) (°) IGRF2010 11/06/12 10.87 65.84 52,195

Design	PLAN #1 PRELIMINARY				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	348.00	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	348.00	1,279.82	168.99	-35.93	2.00	2.00	0.00	348.00	
2,763.22	20.00	348.00	2,654.79	658.50	-139.99	0.00	0.00	0.00	0.00	
3,763.22	0.00	0.00	3,634.60	827.49	-175.92	2.00	-2.00	0.00	180.00	
10,397.61	0.00	0.00	10,269.00	827.49	-175.92	0.00	0.00	0.00	0.00 PB	HL_NBU 922-33D

11/06/12 1:55:21PM Page 2 COMPASS 5000.1 Build 40



## **SDI**Planning Report



Database: EDM5 Company: US R0

EDM5000-RobertS-Local

US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-33D PAD

 Well:
 NBU 922-33D1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

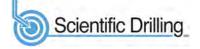
Well NBU 922-33D1CS

GL 4949 & KB 4 @ 4949.00ft (ASSUMED) GL 4949 & KB 4 @ 4949.00ft (ASSUMED)

True

Minimum Curvature

ed Survey									
•									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2									
400.00	2.00	348.00	399.98	1.71	-0.36	1.75	2.00	2.00	0.00
500.00	4.00	348.00	499.84	6.83	-1.45	6.98	2.00	2.00	0.00
600.00	6.00	348.00	599.45	15.35	-3.26	15.69	2.00	2.00	0.00
700.00	8.00	348.00	698.70	27.27	-5.80	27.88	2.00	2.00	0.00
800.00	10.00	348.00	797.47	42.57	-9.05	43.52	2.00	2.00	0.00
900.00	12.00	348.00	895.62	61.23	-13.02	62.60	2.00	2.00	0.00
1,000.00	14.00	348.00	993.06	83.24	-17.70	85.10	2.00	2.00	0.00
1,100.00	16.00	348.00	1,089.64	108.55	-23.08	110.98	2.00	2.00	0.00
1,200.00	18.00	348.00	1,185.27	137.15	-29.16	140.21	2.00	2.00	0.00
1,252.45	19.05	348.00	1,235.00	153.45	-32.62	156.88	2.00	2.00	0.00
1,300.00	ER 20.00	348.00	1,279.82	168.99	-35.93	172.77	2.00	2.00	0.00
	20.00 2 hold at 1300.00		1,279.02	100.99	-35.93	172.77	2.00	2.00	0.00
1,400.00	20.00	348.00	1,373.78	202.45	-43.04	206.97	0.00	0.00	0.00
1,500.00	20.00	348.00	1,467.75	235.90	-50.15	241.17	0.00	0.00	0.00
1,600.00	20.00	348.00	1,561.72	269.35	-57.26	275.37	0.00	0.00	0.00
1,636.48	20.00	348.00	1,596.00	281.56	-59.86	287.85	0.00	0.00	0.00
1,700.00	20.00	348.00	1,655.69	302.81	64.27	309.58	0.00	0.00	0.00
					-64.37				
1,800.00	20.00	348.00	1,749.66	336.26	-71.49	343.78	0.00	0.00	0.00
1,900.00	20.00	348.00	1,843.63	369.72	-78.60	377.98	0.00	0.00	0.00
2,000.00	20.00	348.00	1,937.60	403.17	-85.71	412.18	0.00 0.00	0.00	0.00 0.00
2,016.39 <b>MAHOGANY</b>	20.00	348.00	1,953.00	408.65	-86.88	417.79	0.00	0.00	0.00
2,100.00	20.00	348.00	2,031.57	436.63	-92.82	446.38	0.00	0.00	0.00
2,200.00 2,300.00	20.00 20.00	348.00 348.00	2,125.54 2,219.51	470.08 503.54	-99.94 -107.05	480.59 514.79	0.00 0.00	0.00 0.00	0.00 0.00
2,400.00	20.00	348.00	2,219.51	536.99	-114.16	548.99	0.00	0.00	0.00
2,500.00	20.00	348.00	2,407.45	570.44	-121.27	583.19	0.00	0.00	0.00
2,502.72	20.00	348.00	2,410.00	571.35	-121.46	584.12	0.00	0.00	0.00
8 5/8"									
2,600.00	20.00	348.00	2.501.42	603.90	-128.38	617.39	0.00	0.00	0.00
2,700.00	20.00	348.00	2,595.39	637.35	-126.36	651.60	0.00	0.00	0.00
2,763.22	20.00	348.00	2,654.79	658.50	-139.99	673.22	0.00	0.00	0.00
Start Drop -2			,						
2,800.00	19.26	348.00	2,689.43	670.59	-142.56	685.58	2.00	-2.00	0.00
2,900.00	17.26	348.00	2,784.39	701.24	-149.08	716.91	2.00	-2.00	0.00
3,000.00	15.26	348.00	2,880.38	728.64	-154.90	744.92	2.00	-2.00	0.00
3,100.00	13.26	348.00	2,977.30	752.74	-160.03	769.56	2.00	-2.00	0.00
3,200.00	11.26	348.00	3,075.01	773.51	-164.44	790.80	2.00	-2.00	0.00
3,300.00	9.26	348.00	3,173.40	790.94	-168.15	808.62	2.00	-2.00	0.00
3,400.00	7.26	348.00	3,272.36	805.00	-171.14	822.99	2.00	-2.00	0.00
3,500.00	5.26	348.00	3,371.76	815.67	-173.41	833.90	2.00	-2.00	0.00
3,600.00	3.26	348.00	3,471.48	822.95	-174.95	841.34	2.00	-2.00	0.00
3,700.00	1.26	348.00	3,571.39	826.81	-175.77	845.29	2.00	-2.00	0.00
3,763.22	0.00	0.00	3,634.60	827.49	-175.92	845.99	2.00	-2.00	0.00
Start 6634.40	0 hold at 3763.22	2 MD							
3,800.00	0.00	0.00	3,671.39	827.49	-175.92	845.99	0.00	0.00	0.00



## **SDI** Planning Report



Database: Company: Project: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-33D PAD

 Well:
 NBU 922-33D1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

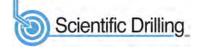
Well NBU 922-33D1CS

GL 4949 & KB 4 @ 4949.00ft (ASSUMED) GL 4949 & KB 4 @ 4949.00ft (ASSUMED)

True

Minimum Curvature

Design:	PLAN #1 PRE	LIMINARY							
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,900.00	0.00	0.00	3,771.39	827.49	-175.92	845.99	0.00	0.00	0.00
4,000.00	0.00	0.00	3,871.39	827.49	-175.92	845.99	0.00	0.00	0.00
4,100.00 4,200.00	0.00 0.00	0.00 0.00	3,971.39 4,071.39	827.49 827.49	-175.92 -175.92	845.99 845.99	0.00 0.00	0.00 0.00	0.00 0.00
4,300.00	0.00	0.00	4,171.39	827.49	-175.92	845.99	0.00	0.00	0.00
4,400.00	0.00	0.00	4,271.39	827.49	-175.92	845.99	0.00	0.00	0.00
4,500.00	0.00	0.00	4,371.39	827.49	-175.92	845.99	0.00	0.00	0.00
4,600.00	0.00	0.00	4,471.39	827.49	-175.92	845.99	0.00	0.00	0.00
4,609.61	0.00	0.00	4,481.00	827.49	-175.92	845.99	0.00	0.00	0.00
WASATCH									
4,700.00	0.00	0.00	4,571.39	827.49	-175.92	845.99	0.00	0.00	0.00
4,800.00	0.00	0.00	4,671.39	827.49	-175.92	845.99	0.00	0.00	0.00
4,900.00	0.00	0.00	4,771.39	827.49	-175.92	845.99	0.00	0.00	0.00
5,000.00	0.00	0.00	4,871.39	827.49	-175.92	845.99	0.00	0.00	0.00
5,100.00	0.00	0.00	4,971.39	827.49	-175.92	845.99	0.00	0.00	0.00
5,200.00	0.00	0.00	5,071.39	827.49	-175.92	845.99	0.00	0.00	0.00
5,300.00	0.00	0.00	5,171.39	827.49	-175.92	845.99	0.00	0.00	0.00
5,400.00	0.00 0.00	0.00	5,271.39 5,371.39	827.49 827.49	-175.92 -175.92	845.99 845.99	0.00 0.00	0.00 0.00	0.00 0.00
5,500.00 5,600.00	0.00	0.00 0.00	5,371.39 5,471.39	827.49 827.49	-175.92 -175.92	845.99 845.99	0.00	0.00	0.00
5,700.00	0.00	0.00	5,571.39	827.49 827.49	-175.92	845.99	0.00	0.00	0.00
5,800.00	0.00	0.00	5,671.39	827.49	-175.92	845.99	0.00	0.00	0.00
5,900.00	0.00	0.00	5,771.39	827.49 827.49	-175.92	845.99	0.00	0.00	0.00
6,000.00	0.00	0.00	5,871.39	827.49	-175.92	845.99	0.00	0.00	0.00
6,100.00	0.00	0.00	5,971.39	827.49	-175.92	845.99	0.00	0.00	0.00
6,200.00	0.00	0.00	6,071.39	827.49	-175.92	845.99	0.00	0.00	0.00
6,300.00	0.00	0.00	6,171.39	827.49	-175.92	845.99	0.00	0.00	0.00
6,400.00	0.00	0.00	6,271.39	827.49	-175.92	845.99	0.00	0.00	0.00
6,500.00	0.00	0.00	6,371.39	827.49	-175.92	845.99	0.00	0.00	0.00
6,600.00 6,700.00	0.00 0.00	0.00 0.00	6,471.39 6,571.39	827.49 827.49	-175.92 -175.92	845.99 845.99	0.00 0.00	0.00 0.00	0.00 0.00
6,800.00	0.00 0.00	0.00	6,671.39	827.49	-175.92	845.99 845.99	0.00 0.00	0.00	0.00 0.00
6,900.00 7,000.00	0.00	0.00 0.00	6,771.39 6,871.39	827.49 827.49	-175.92 -175.92	845.99	0.00	0.00 0.00	0.00
7,100.00	0.00	0.00	6,971.39	827.49	-175.92	845.99	0.00	0.00	0.00
7,112.61	0.00	0.00	6,984.00	827.49	-175.92	845.99	0.00	0.00	0.00
MESAVERDE									
7,200.00	0.00	0.00	7,071.39	827.49	-175.92	845.99	0.00	0.00	0.00
7,300.00	0.00	0.00	7,171.39	827.49	-175.92	845.99	0.00	0.00	0.00
7,400.00	0.00	0.00	7,271.39	827.49	-175.92	845.99	0.00	0.00	0.00
7,500.00	0.00	0.00	7,371.39	827.49	-175.92	845.99	0.00	0.00	0.00
7,600.00	0.00	0.00	7,471.39	827.49	-175.92	845.99	0.00	0.00	0.00
7,700.00	0.00	0.00	7,571.39	827.49	-175.92	845.99	0.00	0.00	0.00
7,800.00	0.00	0.00	7,671.39 7,771.39	827.49	-175.92	845.99	0.00	0.00	0.00
7,900.00 8,000.00	0.00 0.00	0.00 0.00	7,771.39 7,871.39	827.49 827.49	-175.92 -175.92	845.99 845.99	0.00 0.00	0.00 0.00	0.00 0.00
8,100.00	0.00	0.00	7,971.39	827.49	-175.92	845.99	0.00	0.00	0.00
8,200.00	0.00	0.00	8,071.39	827.49	-175.92	845.99	0.00	0.00	0.00
8,200.00	0.00	0.00	8,071.39 8,171.39	827.49 827.49	-175.92 -175.92	845.99 845.99	0.00	0.00	0.00
8,400.00	0.00	0.00	8,271.39	827.49	-175.92	845.99	0.00	0.00	0.00
8,500.00	0.00	0.00	8,371.39	827.49	-175.92	845.99	0.00	0.00	0.00
8,600.00	0.00	0.00	8,471.39	827.49	-175.92	845.99	0.00	0.00	0.00
8,700.00	0.00	0.00	8,571.39	827.49	-175.92	845.99	0.00	0.00	0.00
8,800.00	0.00	0.00	8,671.39	827.49	-175.92	845.99	0.00	0.00	0.00



## **SDI**Planning Report



Database: Company: Project: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-33D PAD

 Well:
 NBU 922-33D1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well NBU 922-33D1CS

GL 4949 & KB 4 @ 4949.00ft (ASSUMED) GL 4949 & KB 4 @ 4949.00ft (ASSUMED)

True

Minimum Curvature

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
				• •	` '		, ,	, ,	
8,900.00 9,000.00 9,100.00	0.00 0.00 0.00	0.00 0.00 0.00	8,771.39 8,871.39 8,971.39	827.49 827.49 827.49	-175.92 -175.92 -175.92	845.99 845.99 845.99	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
9,200.00 9,294.61	0.00	0.00	9,071.39 9,166.00	827.49 827.49	-175.92 -175.92	845.99 845.99	0.00	0.00	0.00
·	O_NBU 922-33D		0,100.00	027.40	170.02	040.00	0.00	0.00	0.00
9,300.00 9,341.61	0.00 0.00	0.00 0.00	9,171.39 9,213.00	827.49 827.49	-175.92 -175.92	845.99 845.99	0.00 0.00	0.00 0.00	0.00 0.00
CASTLEGAT			, , , , ,						
9,400.00	0.00	0.00	9,271.39	827.49	-175.92	845.99	0.00	0.00	0.00
9,500.00 9,600.00 9,700.00 9,797.61	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	9,371.39 9,471.39 9,571.39 9,669.00	827.49 827.49 827.49 827.49	-175.92 -175.92 -175.92 -175.92	845.99 845.99 845.99 845.99	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
BLACKHAW	K								
9,800.00	0.00	0.00	9,671.39	827.49	-175.92	845.99	0.00	0.00	0.00
9,900.00 10,000.00 10,100.00 10,200.00 10,300.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	9,771.39 9,871.39 9,971.39 10,071.39 10,171.39	827.49 827.49 827.49 827.49 827.49	-175.92 -175.92 -175.92 -175.92 -175.92	845.99 845.99 845.99 845.99	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
10.397.61	0.00	0.00	10,269.00	827.49	-175.92	845.99	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SEGO_NBU 922-33D1C - plan hits target cent - Circle (radius 25.00		0.00	9,166.00	827.49	-175.92	14,529,271.02	2,074,289.42	39.998506	-109.450844
PBHL_NBU 922-33D1C - plan hits target cent - Circle (radius 100.0		0.00	10,269.00	827.49	-175.92	14,529,271.02	2,074,289.42	39.998506	-109.450844

Casing Points					
	Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter
	(ft)	(ft)	Name	(in)	(in)
	2,502.72	2,410.00 8	5 5/8"	8.625	11.000

11/06/12 1:55:21PM Page 5 COMPASS 5000.1 Build 40



## **SDI**Planning Report



Database: Company: Project: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-33D PAD

 Well:
 NBU 922-33D1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-33D1CS

GL 4949 & KB 4 @ 4949.00ft (ASSUMED) GL 4949 & KB 4 @ 4949.00ft (ASSUMED)

True

Minimum Curvature

ormations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,252.45	1,235.00	GREEN RIVER				
	1,636.48	1,596.00	BIRDSNEST				
	2,016.39	1,953.00	MAHOGANY				
	4,609.61	4,481.00	WASATCH				
	7,112.61	6,984.00	MESAVERDE				
	9,294.61	9,166.00	SEGO				
	9,341.61	9,213.00	CASTLEGATE				
	9,797.61	9,669.00	BLACKHAWK				

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
1,300.00	1,279.82	168.99	-35.93	Start 1463.22 hold at 1300.00 MD
2,763.22	2,654.79	658.50	-139.99	Start Drop -2.00
3,763.22	3,634.60	827.49	-175.92	Start 6634.40 hold at 3763.22 MD
10,397.61	10,269.00	827.49	-175.92	TD at 10397.61

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 1 of 5

## Kerr-McGee Oil & Gas Onshore. L.P.

## **NBU 922-33D PAD**

API #4304750509		NBU 922-33C1CS		
	Surface:	1303 FNL / 995 FWL	NWNW	Lot
	BHL:	552 FNL / 2129 FWL	NENW	Lot
API #4304750508		NBU 922-33D1CS		
	Surface:	1309 FNL / 987 FWL	NWNW	Lot
	BHL:	481 FNL / 811 FWL	NWNW	Lot
API #4304750507		NBU 922-33D3DS		
	Surface:	1319 FNL / 970 FWL	NWNW	Lot
	BHL:	1060 FNL / 469 FWL	NWNW	Lot
API #4304750510		NBU 922-33D4BS		
	Surface:	1314 FNL / 978 FWL	NWNW	Lot
	BHL:	806 FNL / 815 FWL	NWNW	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on August 16-17, 2012. Present were:

- · Dave Gordon, Tyler Cox, Aaron Roe and Brian Barnett BLM;
- · Jessi Brunson USFWS;
- · Bill Knapp ICF Consulting;
- · Jacob Dunham 609 Consulting;
- Mitch Batty Timberline Engineering & Land Surveying, Inc.; and
- · Gina Becker, Charles Chase, Lindsey Frazier, Doyle Holmes, Randy Townley and Casey McKee- Kerr-McGee

## A. Existing Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Topo B for existing roads.

#### B. New or Reconstructed Access Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

No new access road is proposed. Please refer to Topo B.

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 2 of 5

## C. Location of Existing Wells:

Please refer to Topo C for exiting wells.

## D. Location of Existing and/or Proposed Facilities:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

This pad will expand the existing pad for the NBU 922-33D, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on November 1, 2012. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

## **GAS GATHERING**

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The total gas gathering pipeline distance from the meter to the tie in point is  $\pm 1,690$ ' and the individual segments are broken up as follows:

## The following segments are "onlease", no ROW needed.

- ±310' (0.06 miles) Section 33 T9S R22E (NW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 6" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±1,185' (0.2 miles) Section 33 T9S R22E (NW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 6" buried gas gathering pipeline from the edge of the pad to the NBU 922-33E Pad pipeline intersection. Please refer to Exhibit A Gas Gathering- Line 17 and 16.
  - ±195' (0.04 miles) Section 33 T9S R22E (SW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 8" buried gas gathering pipeline from the NBU 922-33E Pad pipeline intersection to tie in to the existing 16" gas pipeline to the South. This pipeline will be used concurrently with the NBU 922-33E Pad. Please refer to Exhibit A Gas Gathering- Line 14.

## **LIQUID GATHERING**

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is  $\pm 1,690$ ' and the individual segments are broken up as follows:

## The following segments are "onlease", no ROW needed.

- ±310' (0.06 miles) Section 33 T9S R22E (NW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±1,185' (0.2 miles) Section 33 T9S R22E (NW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to the NBU 922-33E Pad pipeline intersection. Please refer to Exhibit B Liquid Gathering- Line 17 and Line 16.
  - ±195' (0.04 miles) Section 33 T9S R22E (SW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 6" buried liquid gathering pipeline from the NBU 922-33E Pad pipeline intersection to tie in to the existing 6" liquid pipeline to the South. This pipeline will be used concurrently with the NBU 922-33E Pad. Please refer to Exhibit B Liquid Gathering- Line 14.

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 3 of 5

## **Pipeline Gathering Construction**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

## The Anadarko Completions Transportation System (ACTS) information:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Exhibit C for ACTS Lines

## E. Location and Types of Water Supply:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### F. Construction Materials:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

## G. Methods for Handling Waste:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

## **Materials Management**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

## H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

#### I. Well Site Layout:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### J. Plans for Surface Reclamation:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### **Interim Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### **Final Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

## **Measures Common to Interim and Final Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 4 of 5

#### **Weed Control**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

## **Monitoring**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

## K. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

#### L. Other Information:

## **Cultural and Paleontological Resources**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

## **Resource Reports:**

A Class I literature survey was completed on September 21, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC-12-264.

A paleontological reconnaissance survey was completed on August 28, 2012 by SWCA Environmental Consultants. For additional details please refer to report SWCA-UT12-14314-177.

Biological field survey was completed on August 25, 2012 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-833 and 841.

## **Proposed Action Annual Emissions Tables:**

Please refer to the Appendix in the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P. Surface Use Plan of Operations 5 of 5

## M. Lessee's or Operators' Representative & Certification:

Gina T. Becker Senior Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6086 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

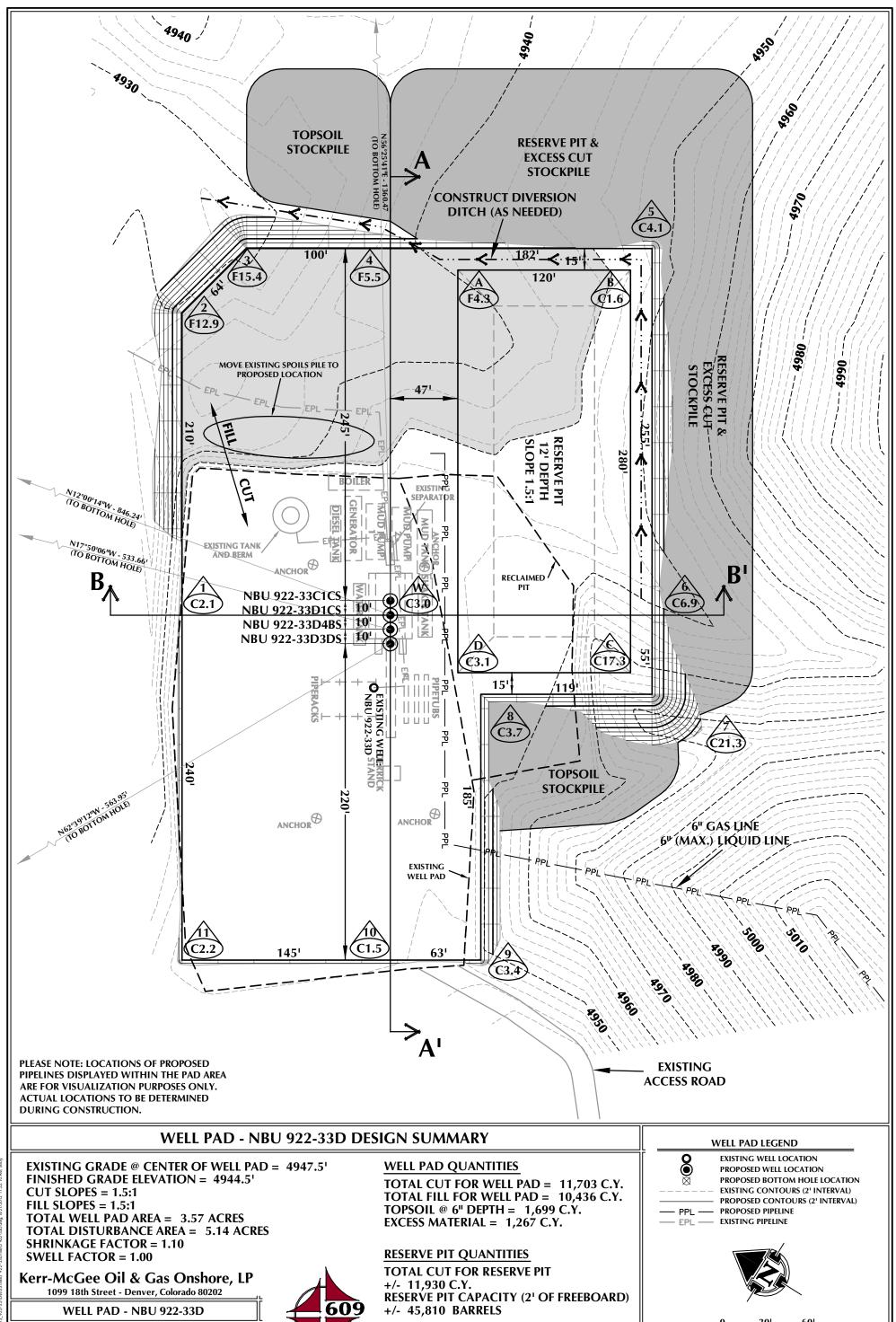
I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Gina T.Becker

November 5, 2012

Date

	SURFACE POSITION						BOTTOM HOLE								
WELL NAME	NAD83 NAD27							NAD83 NAD27							
NBU	<b>LATITUDE</b> 39°59'46.372"	109°27'03.13			7'00.670"	1303 FNL				6'48.570"		53.929"		26'46.108"	FOOTAGES 552' FNL
922-33C1CS NBU	39.996215° 39°59'46.319"	109.450870°	39.996249°	109.4	50186°	995¹ FWL	39.9982	279°	109.4	46825°	39.998		109.4	46141°	2129' FWL
922-33D1CS	39-39-46.319" 39.996200°	109°27'03.24 109.450901°	2" 39°59'46.4 39.996234°	I	!7'00.779" 50216°	1309' FNL 987' FWL	39°59'5 39.998			/'05.501"  51528°	39.59	'54.622" 3506°	l	27'03.038" 50844°	481' FNL 811' FWL
NBU 922-33D4BS	39°59'46.266" 39.996185°		0" 39°59'46.3' 39.996220°		7'00.888"	1314' FNL	39°59'5 39.997				39°59 39.99	'51.411" 7614°		27'02.986"	806' FNL
NBU	39°59'46.214"	109.450931° 109°27'03.45	9" 39°59'46.3		50247° !7'00.996"	978' FWL 1319' FNL	39°59'4			51514° 7'09.893"		48.899"		50830° 27'07.430"	815' FWL 1060' FNL
922-33D3DS NBU	39.996171° 39°59'46.150"	109.450961°	39.996205° 0" 39°59'46.2		50277° '7'01.407"	970' FWL	39.996	882°	109.4	52748°	39.996	5916°	109.4	52064°	469' FWL
922-33D	39.996153°	109°27'03.87 109.451075°	39.996188°		50391°	1326' FNL 938' FWL									
					_	From Surface									
NBU NAME	NORTH		VELL NAME BU	NORTH	EAS	NIDII	NAME	NOR		EAST	NB	ELL NAM	I BI	NORTH	EAST
922-33C1CS	752.31	11335	22-33D1CS	827.71	-176.	922-33	D4BS	508.	.0'	-163.4	111	2-33D3D	S	259.1'	-500.91
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WEL	L PAD - N	NBU 922	-33D	<u>_</u>	$\overline{\mathbf{x}}$	1009		11		BERLI Neerin			SUR	<sup>به)</sup> VEYINC	
WELL	PAD INTE	RFERENC	E PLAT											UTAH 840	
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**WELL PAD - LOCATION LAYOUT** NBU 922-33C1CS, NBU 922-33D1CS, NBU 922-33D4BS & NBU 922-33D3DS LOCATED IN SECTION 33, T9S, R22S, S.L.B.&M., UINTAH COUNTY, UTAH

(435) 789-1365 **TIMBERLINE** ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

CONSULTING, LLC

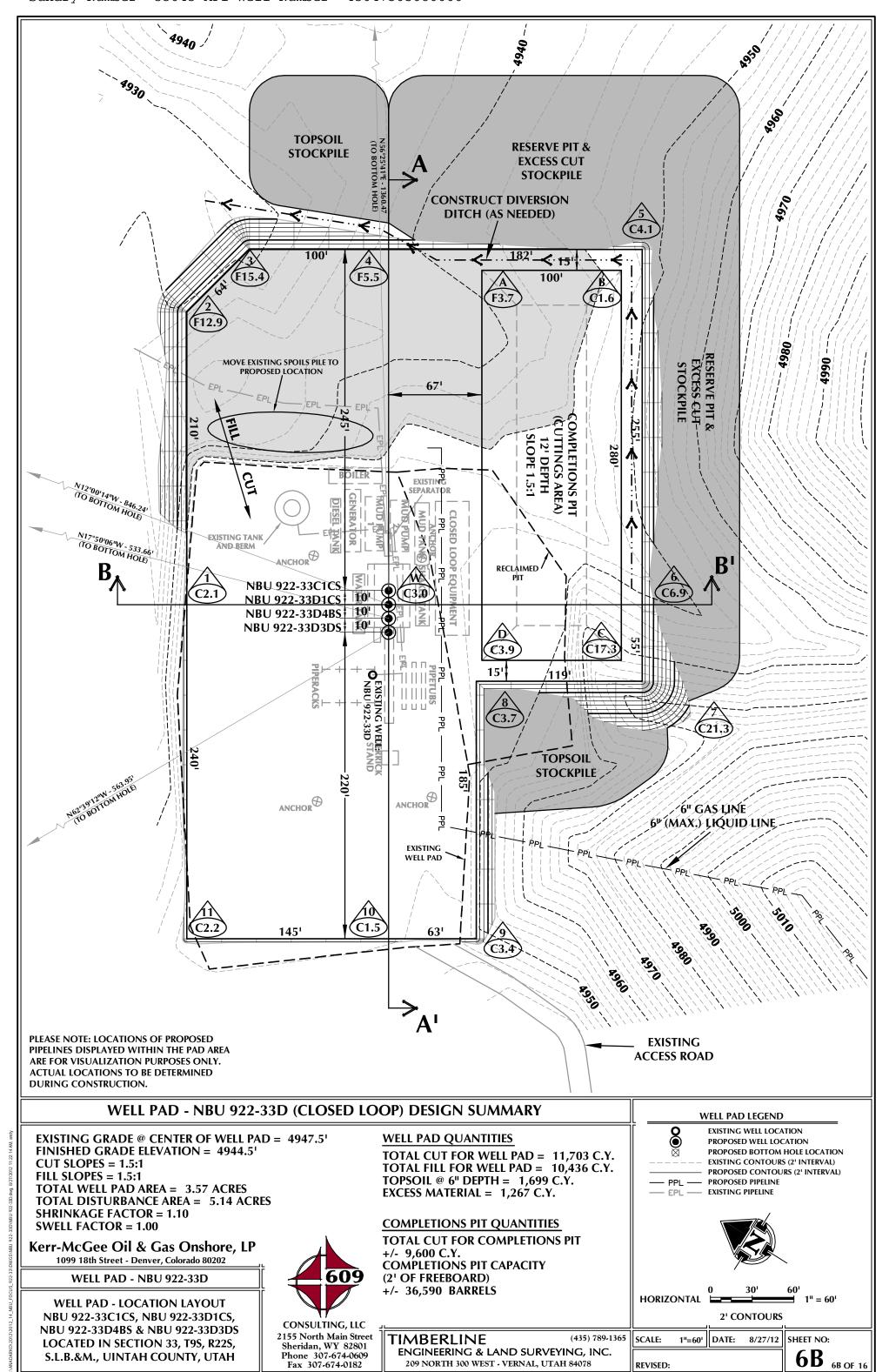
2155 North Main Street

Sheridan, WY 82801

Phone 307-674-0609 Fax 307-674-0182

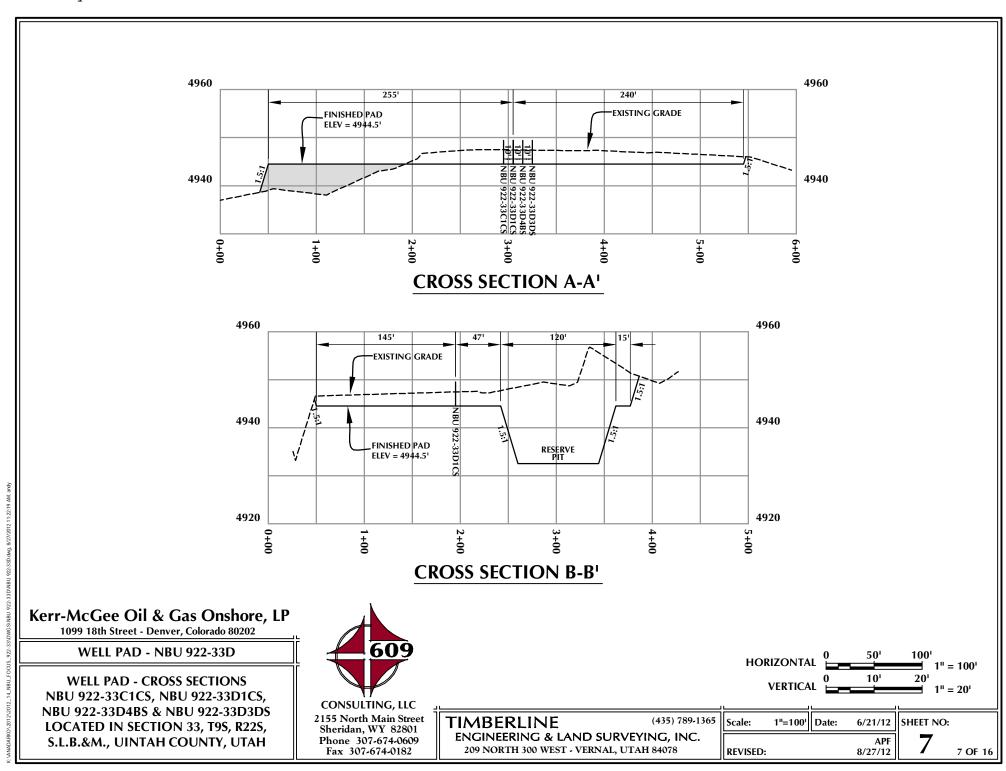


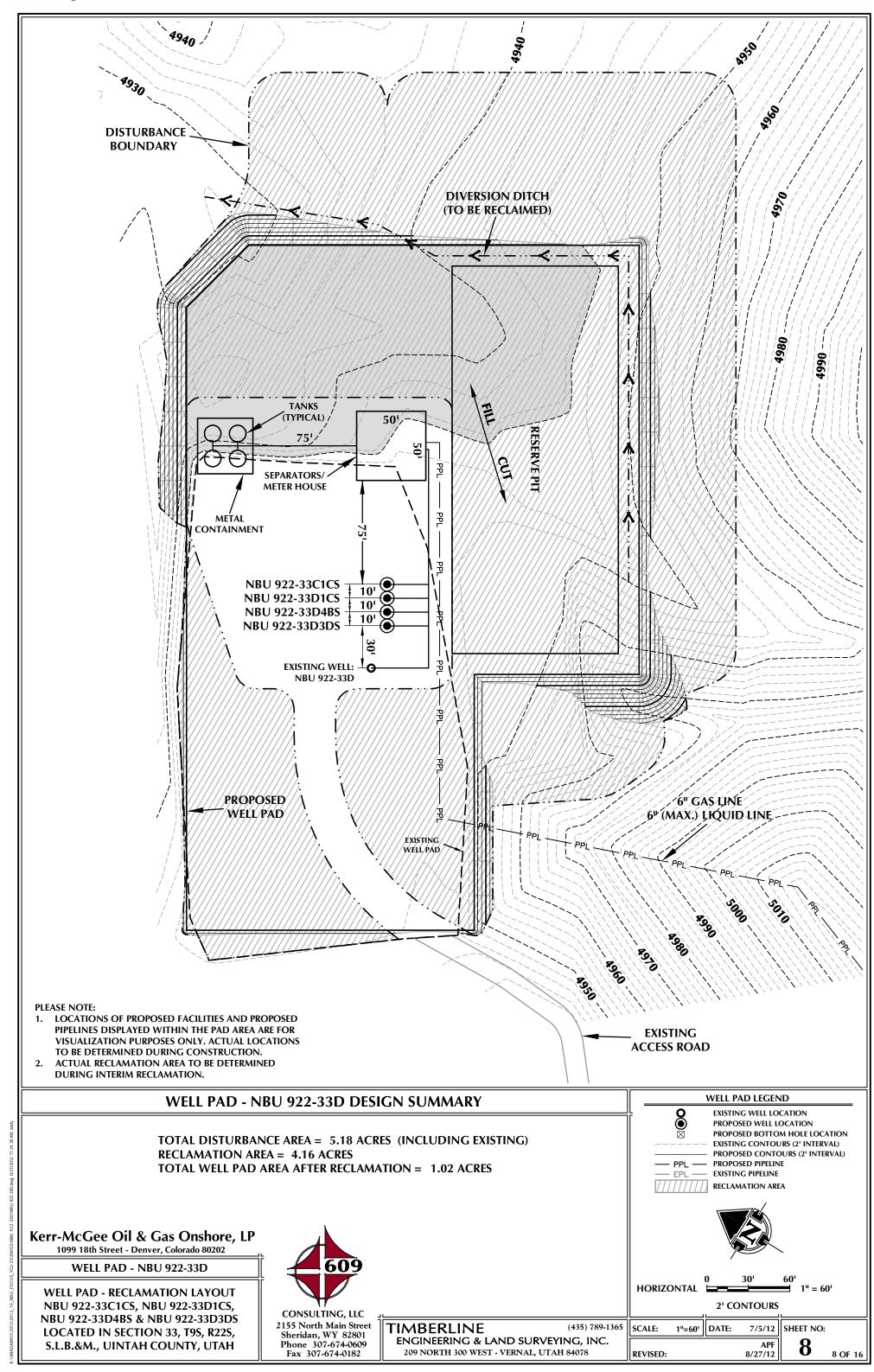
**SCALE:** 1"=60' DATE: 7/3/12 SHEET NO: APF 8/27/12 b **REVISED:** 6 OF 16



209 NORTH 300 WEST - VERNAL, UTAH 84078

**REVISED:** 





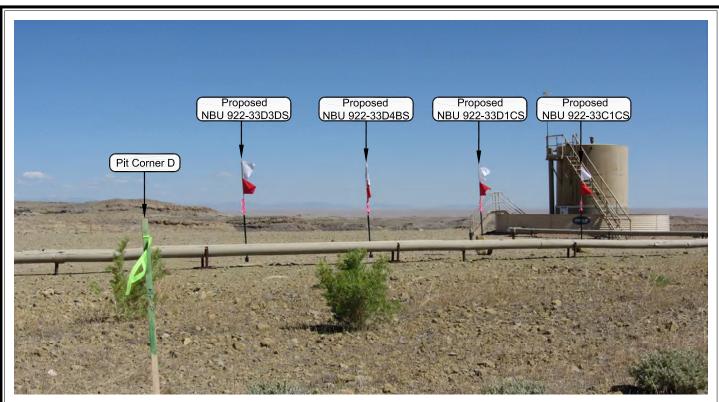


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE





PHOTO VIEW: FROM EXISTING ACCESS ROAD

**CAMERA ANGLE: NORTHERLY** 

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

## WELL PAD - NBU 922-33D

LOCATION PHOTOS
NBU 922-33C1CS, NBU 922-33D1CS,
NBU 922-33D4BS & NBU 922-33D3DS
LOCATED IN SECTION 33, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.



#### CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

## **TIMBERLINE**

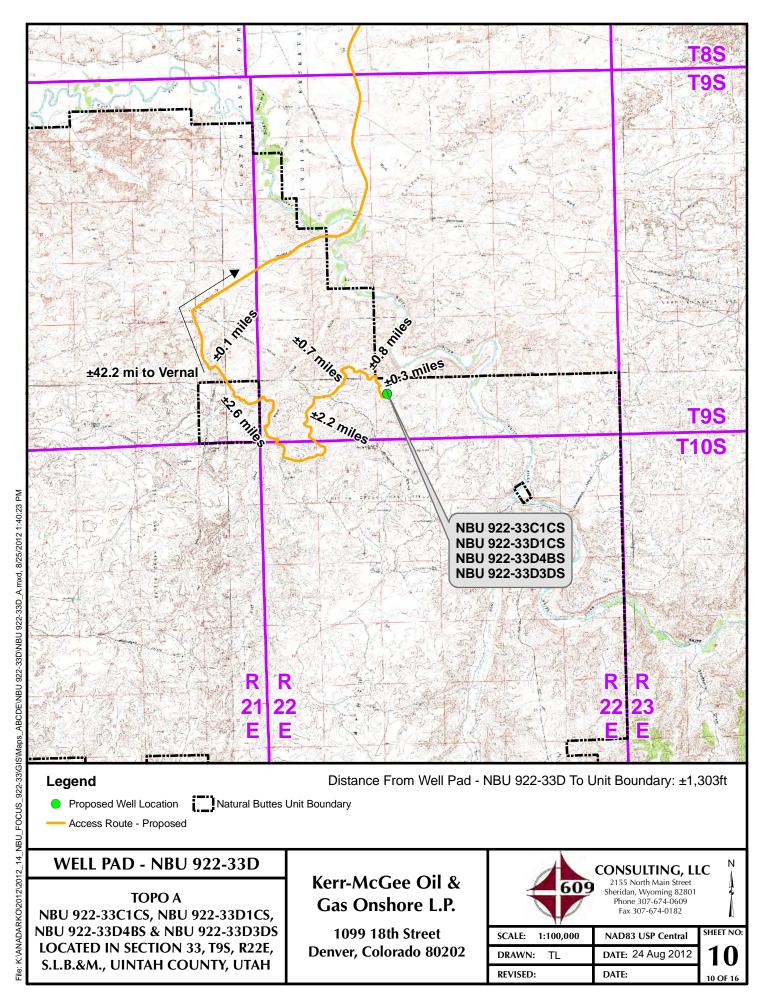
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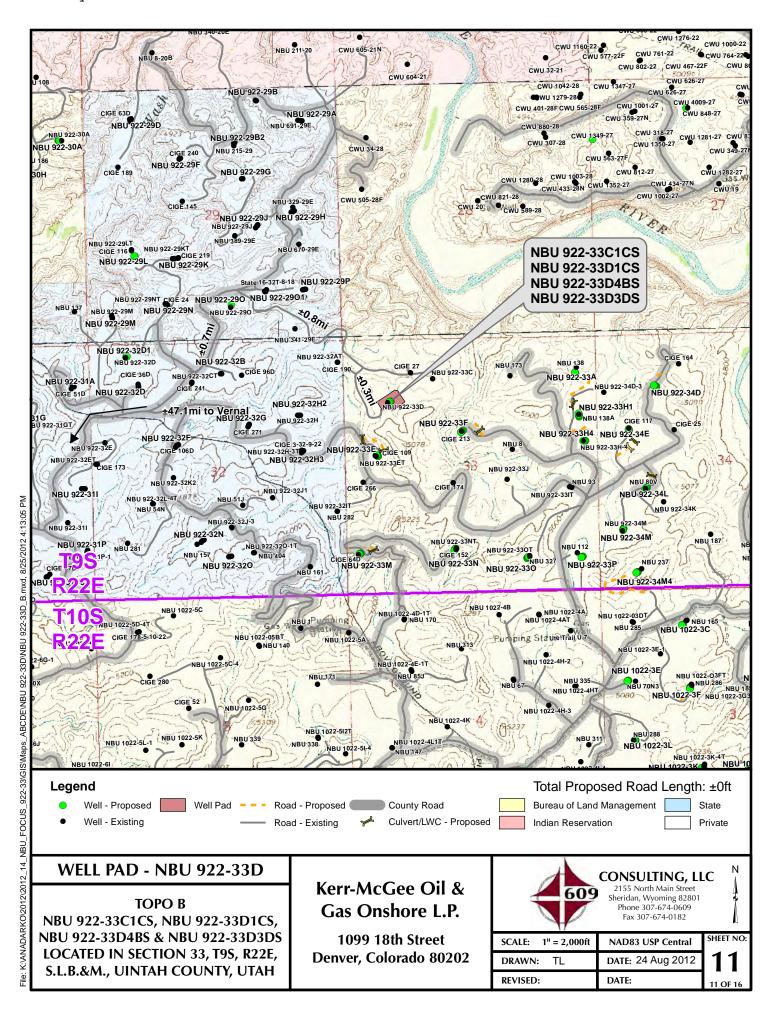
(435) 789-1365

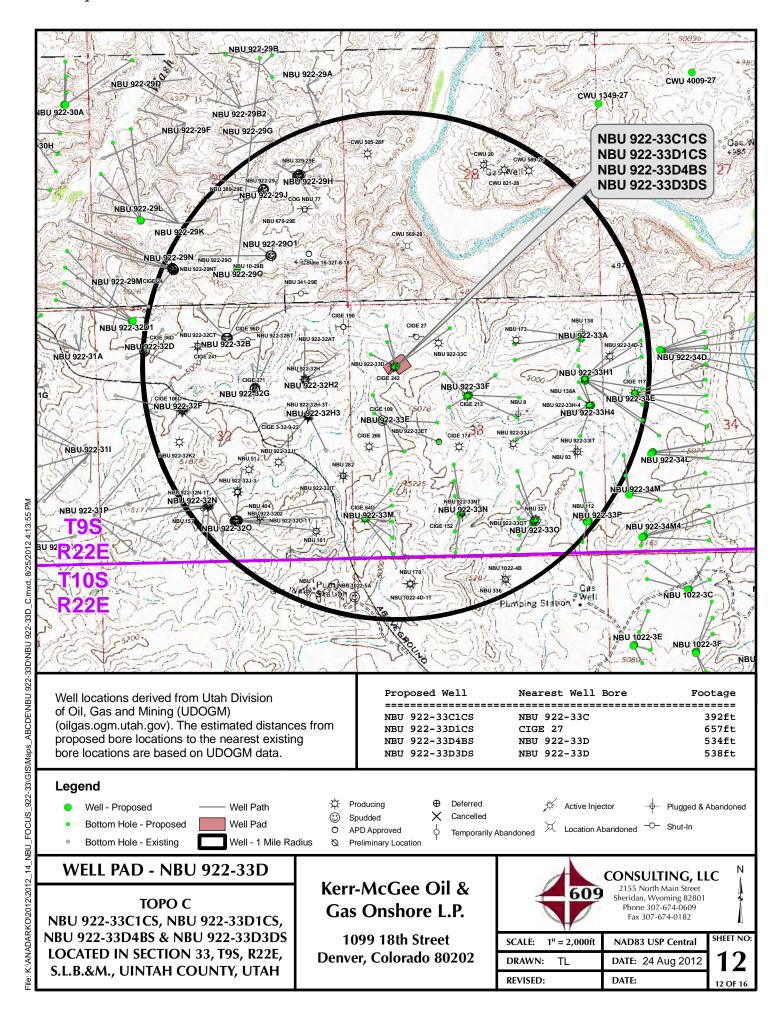
9 OF 16

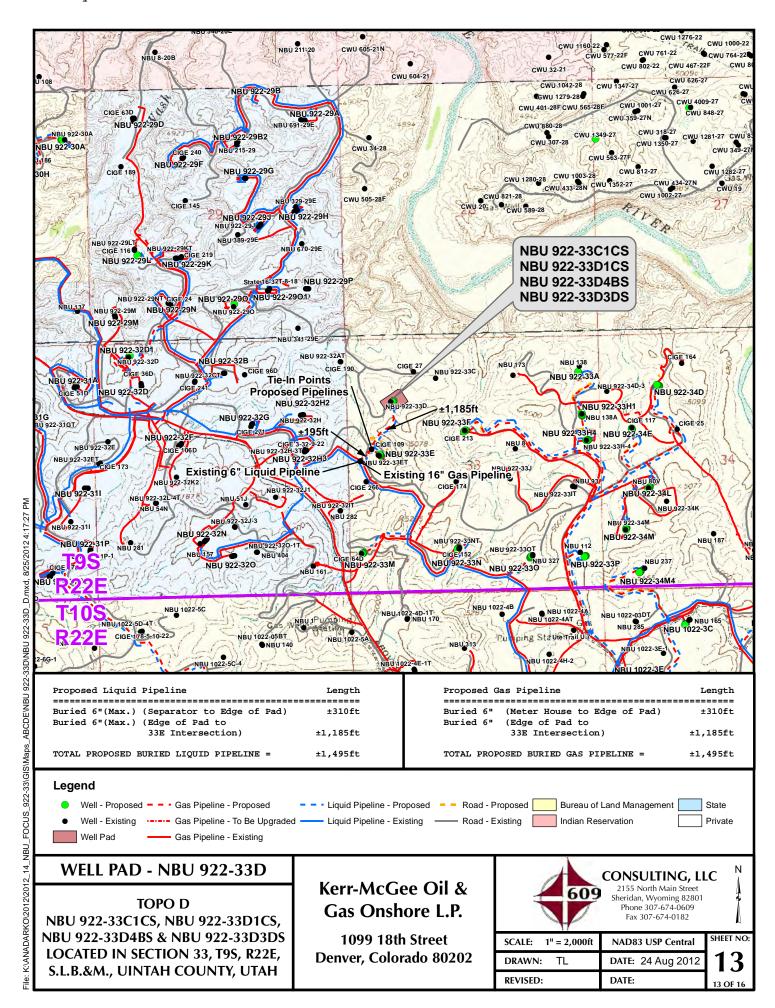
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

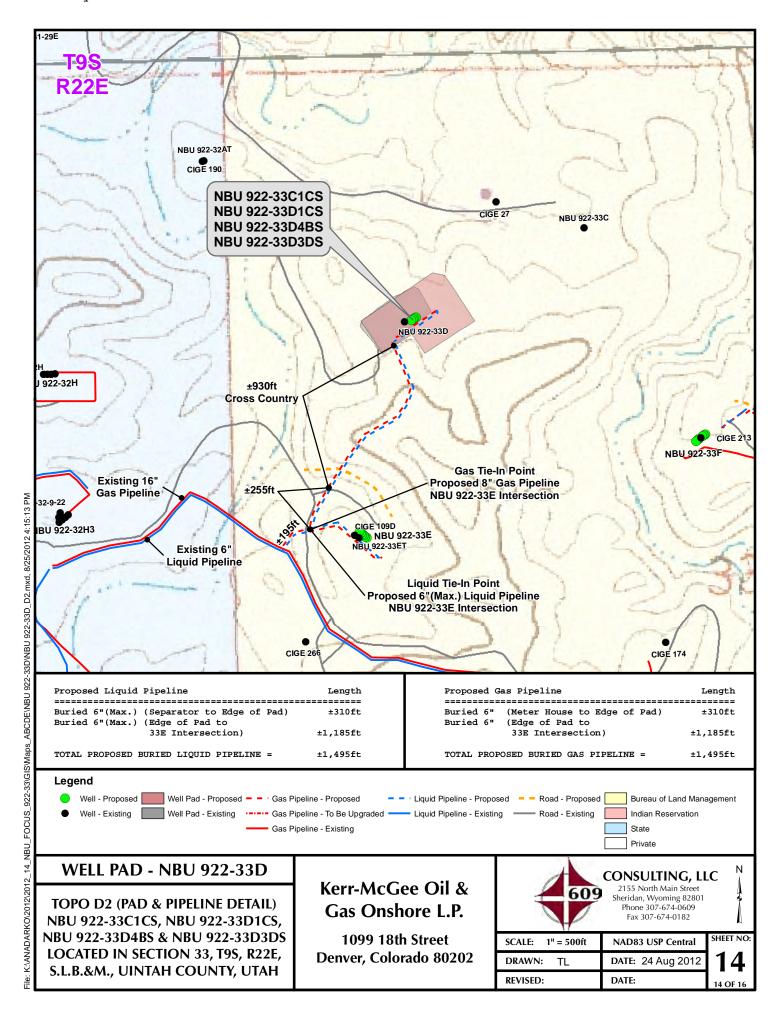
DATE PHOTOS TAKEN: 5-29-12	PHOTOS TAKEN BY: A.F.	SHEET NO:
DATE DRAWN: 6-12-12	DRAWN BY: T.J.R.	9











Sundry Number: 33043 API Well Number: 43047505080000 NBU 922-29B CWU 4009-27 CWU 1349-27 BU 922-30A NBU 922-29F NBU 922-29G USA UTU 0462 ST UT ML 5014 NBU 922-33C1CS NBU 922-29H NBU 922-33D1CS NBU 922-29J **NBU 922-33D4BS** TU 0463 NBU 922-33D3DS NBU 922-29K UT ST UO 1207 S NBU 922-290 NBU 922-29 IBU 922-29M UO 01530 ST NBU 922-32D1 NBU 922-32B NBU 922-32D VBU 922-33H1 NBU-922-32H2 NBU 922-33F NBU 922-32G NBU 922-33H4 UO 01530-A ST ST UT ML-22649 USA UTU 0149 USA,UTU 01191-A NBU 922-311 USA UTU 011336 NBU 922-33N NBU 922-33M NBU 1022-30 ping Station Distance To Proposed Well Nearest Lease Boundary -----------NBU 922-33C1CS 552ft NBU 922-33D1CS 481ft NBU 922-33D4BS 806ft 469ft NBU 922-33D3DS Legend Well - Proposed Well Pad Gas Pipeline - Proposed Liquid Pipeline - Proposed - Road - Proposed Bureau of Land Management Bottom Hole - Proposed Lease Boundary Gas Pipeline - To Be Upgraded Liquid Pipeline - Existing Indian Reservation Bottom Hole - Existing Gas Pipeline - Existing State Private WELL PAD - NBU 922-33D CONSULTING, LLC Kerr-McGee Oil & 2155 North Main Street 609 Sheridan, Wyoming 82801 TOPO E Phone 307-674-0609 Gas Onshore L.P. Fax 307-674-0182 NBU 922-33C1CS, NBU 922-33D1CS,

1099 18th Street

Denver, Colorado 80202

SCALE:

DRAWN:

REVISED:

1'' = 2,000 ft

TL

ABCDE\NBU 922-33D\NBU 922-33D

NBU 922-33D4BS & NBU 922-33D3DS

LOCATED IN SECTION 33, T9S, R22E,

S.L.B.&M., UINTAH COUNTY, UTAH

DATE:

NAD83 USP Central

**DATE: 24 Aug 2012** 

SHEET NO

15 OF 16

# DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM APPROVED OMB NO. 1004-0137

	Expires:	July	31,	20
coro Corio	1 NTo			-

6. If Indian, Allottee or Tribe Name

APPLICATION FOR PERMIT TO DI	DRILL OR REENTER
------------------------------	------------------

ATTRICATION FOR TERMIT TO DRILL OR REENTER			N/A
la.	Type of Work: X DRILL REEN	VTER	7. If Unit or CA Agreement, Name and No. UTU63047A
1b.	Type of Well: Oil Well X Gas Well Other	Single Zone X Multiple Zo	8. Lease Name and Well No. NBU 922-33D1CS
2.	Name of Operator		9. API Well No.
	KERR-MCGEE OIL & GAS ONS	HORE, L.P.	4304750508
3a.	3	none No. (include area code)	10. Field and Pool, or Exploratory
	P.O. BOX 173779 PHO DENVER, COLORADO 80202-3779 FA	7_0 723 0000	NATURAL BUTTES
4.	Location of well (Report location clearly and In accordance with	any State requirements.*)	11. Sec.,T.,R.,M.,or Blk.and Survey or Area
	At surface NWNW 1309 FNL 987 FWL LAT =	39.996200 LONG = -109.4	
	prod. Zone	39.998471 LONG = -109.4	
14.	Distance in miles and direction from the nearest town or post offic	e*	12. County or Parish 13. State
	Approximately 49 miles Southeast of Ver	rnal, Utah	UINTAH UT
15.	Distance from proposed*	16. No. of acres in lease	17. Spacing Unit dedicated to this well
	location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)	1363.21	
18.	Distance from proposed location* to nearest well, drilling, completed, 657	10398 MD	20. BLM/ BIA Bond No. on file
	applied for, on this lease, ft.	10269 TVD	WYB000291
21.	Elevations (Show whether DF. RT, GR, etc.)	22. Approximate date work wi	Il start* 23. Estimated duration RECEIVED
	4944.5 GR	5/9/2013	60-90 DAYS
		24. Attachments	MAY 3 1 2013
The	following completed in accordance with the accordance of O	01 10 01 17 41	11.1

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1 shall be attached to this form:

DIV. OF OIL, GAS & MINING

- 1. Well plat certified by a registered surveyor.
- 2. A Drilling Plan.
- 3. A Surface Use Plan ( if the location is on National Forest System Lands, the 5. Operator certification. SUPO shall be filed with the appropriate Forest Service Office).
- 4. Bond to cover the operations unless covered by existing bond on file(see item 20 above).

  - 6. Such other site specific information and/ or plans as may be required by the a

25. Signature Red	Name (Printed/Typed)	GINA T BECKER	Date	November 9, 2012
Title SENIOR REGULATORY ANALYST			<del></del>	

Approved By (Signature)	Name (Printed/Typed) Jerry Kenczka	Date	MAY 2 4 2013	-
Title Assistant Field Manager	Office VERNAL FIELD OFFICE	·		_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to CONDITIONS OF APPROVAL ATTACHED conduct operations thereon.

Conditions of approval, if any, are attached

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Kerr-McGee Oil & Gas Onshore, L.P. hereby certifies that it is authorized by the proper lease interest owners and responsible under the terms and conditions of the lease to conduct lease operation associated with this application.





#### UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE** 170 South 500 East

**VERNAL, UT 84078** 

(435) 781-4400



# CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No: API No:

KERR MCGEE OIL & GAS ONSHORE

NBU 922-33D1CS

43-047-50508

Location:

Lease No: Agreement: NWNW, Sec. 33, T9S, R22E

UTU-01191A

**OFFICE NUMBER:** 

(435) 781-4400

**OFFICE FAX NUMBER:** 

(435) 781-3420

### A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

## **NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)		Twenty-Four (24) hours prior to running casing and cementing all casing strings to:  blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	_	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 7 Well: NBU 922-33D1CS 5/28/2013

### SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
  work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
  mitigation may be necessary for the discovered paleontologic material before construction can
  continue.
- Mitigation measures can be found in Appendix B, Table B-2, of the GNB ROD (BLM 2012b) under the following sections of the table:
  - o Air Quality
  - o Soils
  - o Vegetation: Sclerocactus wetlandicus
  - o Wildlife: Colorado River Fish
- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established
- Noxious and invasive weeds will be controlled throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an
  integrated pest management program is applicable, coordination has been undertaken with the
  state and local management program (if existing). A copy of the pest management plan will be
  submitted for each project.
- A pesticide use permit (PUP) will be obtained for the project, if applicable.
- Paleontological monitoring by a BLM permitted paleontologist is required for Well Pads 922-33A, 922-33D, 922-33E, 922-33H, and 922-33N; Access Road for 922-33E during all ground disturbing activities (BLM 2012b; BLM 2013c).

Page 3 of 7 Well: NBU 922-33D1CS 5/28/2013

- Construction and development activities for Well Pads 922-33D and 922-33F will be prohibited from 12/1 through 9/31, pending the results of a preconstruction nest occupancy survey for Great Horned Owl Nest(BLM 2012b; BLM 2008a).
- Damage to livestock and livestock facilities would be reported as quickly as possible to the BLM and affected livestock operators. Operators would develop and employ prevention measures to avoid damaging fences, gates, and cattleguards, including upgrading cattleguard gate widths and load-bearing requirements and fencing all open pits and cellars.

If partial or complete removal of a fence cannot be avoided, the fence would be braced and tied off per the BLM guidance. Where the fence is crossed by a road, the fence would be braced and a cattleguard and gate installed per BLM guidance.

Page 4 of 7 Well: NBU 922-33D1CS 5/28/2013

### DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

- Cement for the 4.5 inch casing shall be brought up to a minimum of 200 feet above the surface casing shoe.
- A CBL shall be run from TD to TOC in the Production Casing.
- Variances shall be granted as requested in Section 9 of the Drilling Program of the SOP.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

## DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
  encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
  Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each

Page 5 of 7 Well: NBU 922-33D1CS 5/28/2013

encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall
  be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL
  to this office.
- Please submit an electronic copy of all other logs run on this well by CD (compact disc).
   This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 6 of 7 Well: NBU 922-33D1CS 5/28/2013

#### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <a href="https://www.ONRR.gov">www.ONRR.gov</a>.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written communication
  and must be received in this office by not later than the fifth business day following the date on
  which the well is placed on production. The notification shall provide, as a minimum, the following
  informational items:
  - o Operator name, address, and telephone number.
  - Well name and number.
  - o Well location (1/41/4, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - o Unit agreement and/or participating area name and number, if applicable.
  - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid,

Page 7 of 7 Well: NBU 922-33D1CS 5/28/2013

and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
  lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
  suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
  obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval
  of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

	STATE OF UTAH		FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A	
SUNDRY NOTICES AND REPORTS ON WELLS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
	oposals to drill new wells, significantly or reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-33D1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047505080000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	h Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 73779 720 929-	9. FIELD and POOL or WILDCAT: 65NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1309 FNL 0987 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 33 Township: 09.0S Range: 22.0E Meri	dian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
7	ACIDIZE	ALTER CASING	CASING REPAIR
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
NOTICE OF INTENT	CONVERT WELL TYPE		
	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:
40 DECORUDE PROPOSED OR	COMPLETED OPERATIONS. Clearly show a	United the desired by the latest terms and the desired by the desi	
Kerr-McGee Oil & G an extension to this	Gas Onshore, L.P. (Kerr-McGe APD for the maximum time with any questions and/or co	ee) respectfully requests allowed. Please contact	Approved by the Utah Division of Oil, Gas and Mining
			Date: July 10, 2013
			By: Bally Still
NAME (PLEASE PRINT) Teena Paulo	<b>PHONE NUMB</b> 720 929-6236	ER TITLE Staff Regulatory Specialist	
SIGNATURE		DATE	
N/A		7/5/2013	



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047505080000

API: 43047505080000 Well Name: NBU 922-33D1CS

Location: 1309 FNL 0987 FWL QTR NWNW SEC 33 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 7/15/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

g to a concession of come to more approximation, the concession of
• If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>
• Has there been any unit or other agreements put in place that could affect the permitting or operation of th proposed well? ( Yes ( No
<ul> <li>Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?</li> <li>Yes</li> <li>No</li> </ul>
• Has the approved source of water for drilling changed? 🔘 Yes 🍺 No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well? 🌘 Yes 🔘 No
nature: Teena Paulo Date: 7/5/2013

Sig

Title: Staff Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

			1	
	STATE OF UTAH		FORM 9	
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A		
SUNDRY NOTICES AND REPORTS ON WELLS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	oposals to drill new wells, significantly or reenter plugged wells, or to drill horizor n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-33D1CS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047505080000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	h Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 3779 720 929-	9. FIELD and POOL or WILDCAT: 110ATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1309 FNL 0987 FWL			COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 33 Township: 09.0S Range: 22.0E Merio	dian: S	STATE: UTAH	
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION		TYPE OF ACTION		
	ACIDIZE	ALTER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME	
7/15/2014	ACIDIZE  ACIDIZE  ACIDIZE  CHANGE TO PREVIOUS PLANS  CHANGE TUBING  CHANGE TUBING  CHANGE WELL STATUS  COMMINGLE PRODUCING FORMATIONS  SEQUENT REPORT te of Work Completion:  DREPORT Date of Spud:  ALTER CASING  CHANGE TUBING  CHANGE TUBING  CHANGE TUBING  FRACTURE TREAT  PLUG AND ABANDON  RECLAMATION OF WELL SITE  REPERFORATE CURRENT FORMATION  SIDETRACK TO REPAIR WELL	CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION	
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK	
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
		VENT OR FLARE	WATER DISPOSAL	
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION	
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:	
40 DECODINE DRODOGED OD			<u>'</u>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.  Approved by the Utah Division of Oil, Gas and Mining May 12, 2014  Date:				
			By:	
NAME (PLEASE PRINT) Teena Paulo	<b>PHONE NUMBI</b> 720 929-6236	TITLE Staff Regulatory Specialist		
SIGNATURE N/A		<b>DATE</b> 5/7/2014		



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047505080000

**API:** 43047505080000 **Well Name:** NBU 922-33D1CS

Location: 1309 FNL 0987 FWL QTR NWNW SEC 33 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 7/15/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

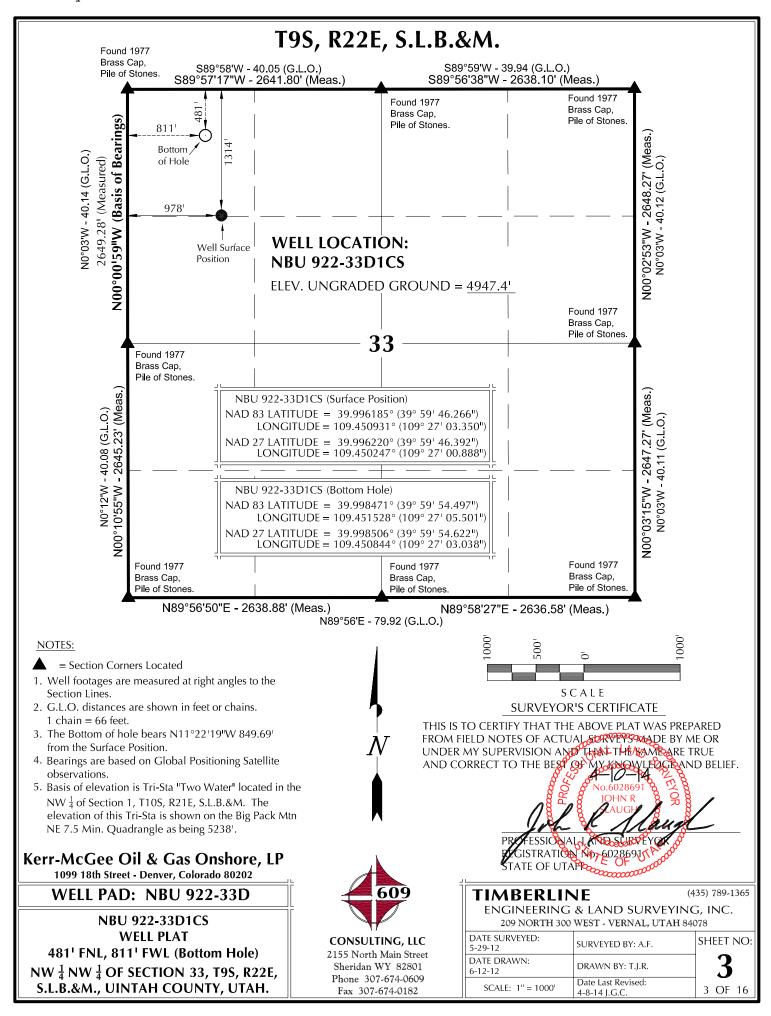
_		= =		
• If loc Yes	ated on private land, has the owr	nership changed, if so, h	nas the surface agreement bee	n updated? 🔵
	any wells been drilled in the vic rements for this location?		ell which would affect the space	cing or siting
	here been any unit or other agre osed well? 🤵 Yes 📵 No	ements put in place that	t could affect the permitting o	r operation of this
	there been any changes to the a osed location? OYes No		wnership, or rightof- way, whi	ch could affect the
• Has t	he approved source of water for	drilling changed?	Yes 📵 No	
	there been any physical changes from what was discussed at the			quire a change in
• Is bo	nding still in place, which covers	this proposed well? 📵	Yes 🔘 No	
Signature:	Teena Paulo	<b>Date:</b> 5/7/2014		

Title: Staff Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: May. 07, 2014

Sundry Number: 60891 API Well Number: 43047505080000 FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

	STATE OF UTAH DEPARTMENT OF NATURAL RESOUR	050	FORM 9
DIVISION OF OIL, GAS, AND MINING		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A	
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	oposals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.	deepen existing wells below ontal laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-33D1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		<b>9. API NUMBER:</b> 43047505080000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 8021	<b>PHONE NUMBER:</b> 7 3779 720 929-0	9. FIELD and POOL or WILDCAT: 1NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1314 FNL 0978 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 33 Township: 09.0S Range: 22.0E Me	ridian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
NOTICE OF INTENT Approximate date work will start: 2/12/2015  SUBSEQUENT REPORT Date of Work Completion:  SPUD REPORT Date of Spud:	□ CHANGE TO PREVIOUS PLANS     ✓ CHANGE WELL STATUS     □ DEEPEN     □ OPERATOR CHANGE     □ PRODUCTION START OR RESUME     □ REPERFORATE CURRENT FORMATION     □ TUBING REPAIR	ALTER CASING  CHANGE TUBING  COMMINGLE PRODUCING FORMATIONS  FRACTURE TREAT  PLUG AND ABANDON  RECLAMATION OF WELL SITE  SIDETRACK TO REPAIR WELL  VENT OR FLARE	CASING REPAIR  CHANGE WELL NAME  CONVERT WELL TYPE  NEW CONSTRUCTION  PLUG BACK  RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF  WILDCAT WELL DETERMINATION	SI TA STATUS EXTENSION  OTHER	APD EXTENSION OTHER:
Kerr-McGee Oil & 0 surface location of survey plat package of operations for up SHL: 1309 FNL 987 1314 FNL 9	COMPLETED OPERATIONS. Clearly show Gas Onshore LP respectfully the NBU 922-33D1CS well. a, directional plan, drill progrepdated location information. FWL LAT 39.996200 LONG 178 FWL LAT 39.996185 LO	requests to change the Please see the revised ram and surface use plar Thank you. PREVIOUS 109.450901 NEW SHL: NG 109.450931	Approved by the UManobi 04j 02045
NAME (PLEASE PRINT) Kristina Geno	<b>PHONE NUMB</b> 720 929-6824	BER TITLE Regulatory Analyst	
SIGNATURE N/A		DATE 2/12/2015	



# Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 922-33D WELLS – NBU 922-33C1CS, NBU 922-33D4BS, NBU 922-33D1CS & NBU 922-33D3DS Section 33, T9S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.7 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 2.6 miles to a third Class D County Road to the east. Exit left and proceed in an easterly, then northeasterly, then easterly direction along the third Class D County Road approximately 2.2 miles to a fourth Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the fourth Class D County Road approximately 0.7 miles to a service road to the southeast. Exit right and proceed in a southeasterly direction along the service road approximately 0.8 miles to a second service road to the south. Exit right and proceed in a southerly, then easterly direction along the second service road approximately 0.3 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 48.9 miles in a southerly direction.

**SHEET 16 OF 16** 

NBU 922-33E Pad Drilling Program
1 of 7

#### Kerr-McGee Oil & Gas Onshore, L.P.

#### NBU 922-33D1CS

Surface: 1314 FNL / 978 FWL NWNW

BHL: 481 FNL / 811 FWL NWNW

Section 33 T9S R22E

Unitah County, Utah Mineral Lease: UTU-01191-A

#### **ONSHORE ORDER NO. 1**

#### **DRILLING PROGRAM**

# 1. & 2.a <u>Estimated Tops of Important Geologic Markers</u>: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,235'	
Birds Nest	1,596'	Water
Mahogany	1,953'	Water
Wasatch	4,481'	Gas
Mesaverde	6,984'	Gas
Sego	9,166'	Gas
Castlegate	9,213'	Gas
Blackhawk	9,669'	Gas
TVD =	10,269'	
TD =	10,398'	

2.c Kerr McGee Oil & Gas Onshore LP (Kerr McGee) may elect to drill to (i) the Blackhawk formation (part of the Mesaverde Group), (ii) to a shallower depth within the Mesaverde Group, or (iii) to the Wasatch Formation. If Kerr McGee drills to the Blackhawk formation, please refer to Blackhawk as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr-McGee drills to a shallower depth in the Mesaverde Group or to the Wasatch Formation, please refer to the attached Wasatch/Mesaverde Drilling Program which includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the shallower formations.

#### 3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

NBU 922-33E Pad Drilling Program 2 of 7

#### 4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

#### 5. <u>Drilling Fluids Program:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

#### 6. <u>Evaluation Program</u>:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

#### 7. <u>Abnormal Conditions</u>:

#### 7.a Blackhawk (Part of Mesaverde Group)

Maximum anticipated bottom hole pressure calculated at 10269' TVD, approximately equals 6,572 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,299 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

#### 7.b Wasach Formation/Mesaverde Group

Maximum anticipated bottom hole pressure calculated at 9166' TVD, approximately equals 5,591 psi (0.61 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,599 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

#### 8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

#### 9. <u>Variances:</u>

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

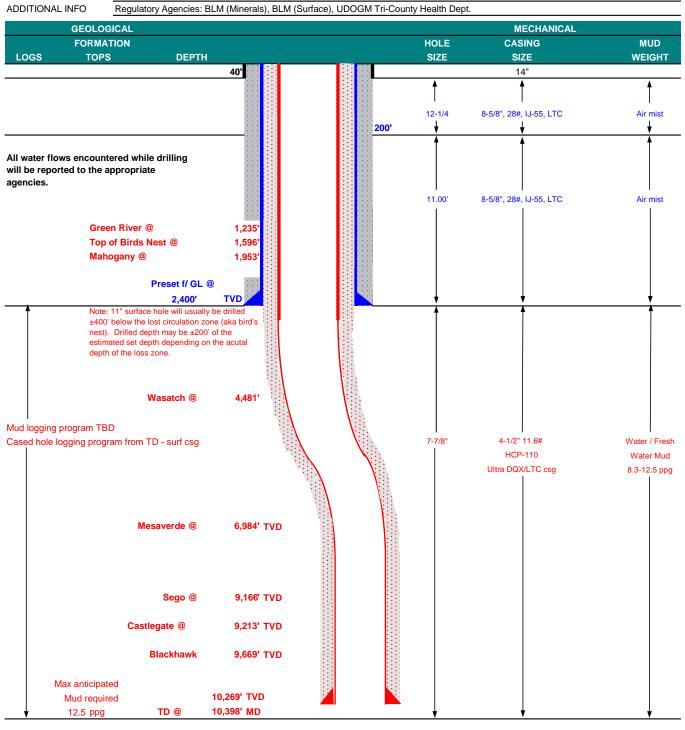
#### 10. Other Information:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



# KERR-McGEE OIL & GAS ONSHORE LP Blackhawk Drilling Program

COMPANY NAME KER	R-McGEE OIL &	GAS ONSHORE	LP		DATE	November	<del></del>		
WELL NAME NBU	J 922-33D1C	S			TD	10,269'	TVD	10,398' MD	
FIELD Natural Buttes	S	COUNTY	Uintah S	TATE Utah		FINISI	HED ELEVATION _	4,945'	
SURFACE LOCATION	NWNW	1314 FNL	978 FWL	Sec 33	T 9S	R 22E			
	Latitude:	39.996185	Longitude:	-109.450	931		NAD 83		
BTM HOLE LOCATION	NWNW	481 FNL	811 FWL	Sec 33	T 9S	R 22E			
	Latitude:	39.998471	Longitude:	-109.451	528		NAD 83		
OBJECTIVE ZONE(S)	BLACKHAWK	(Part of the Mesa	averde Group)				_		
ADDITIONAL INFO Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.									
GEOLOGICAL MECHANICAL									



**Drilling Program** 4 of 7



# KERR-McGEE OIL & GAS ONSHORE LP **Blackhawk Drilling Program**

CASING PROGRAI	<u>M</u>	DESIGN FACTORS									
				LTC	DQX						
	SIZE	INT	ERVA	Ļ	WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION
CONDUCTOR	14"	(	0-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,400	28.00	IJ-55	LTC	2.24	1.67	5.91	N/A
								10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.30		3.76
	4-1/2"	5,000	to	10,398'	11.60	HCP-110	LTC	1.19	1.30	5.51	

**Surface Casing:** 

0.73 psi/ft = frac gradient @ surface shoe 12.5 (Burst Assumptions: TD =

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

Production casing:

0.64 psi/ft = bottomhole gradient (Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi)

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

#### **CEMENT PROGRAM**

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1			+ 0.25 pps flocele				
TOP OUT CMT (	6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
SURFACE			NOTE: If well will circulate water to	surface, opt	ion 2 will be	utilized	
Option 2	LEAD	1,900'	Premium cmt + 16% Gel + 10 pps gilsonite	280	35%	12.00	2.86
			+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps				
	TAIL	500'	Premium cmt + 2% CaCl	170	35%	15.80	1.15
			+ 0.25 pps flocele				
TOP OU	т смт	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	3,978'	Premium Lite II +0.25 pps	310	35%	12.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	6,420'	50/50 Poz/G + 10% salt + 2% gel	1,520	35%	14.30	1.31
			+ 0.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### FLOAT EQUIPMENT & CENTRALIZERS

**SURFACE** 

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

**PRODUCTION** 

Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

centralizer on the first 3 joints and one every third joint thereafter

#### ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

IF extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it.

DRILLING ENGINEER:		DATE:	
	Nick Spence / Danny Showers / Travis Hansell	·	
DRILLING SUPERINTENDENT:		DATE:	
	K 0 11: // 11/	•	

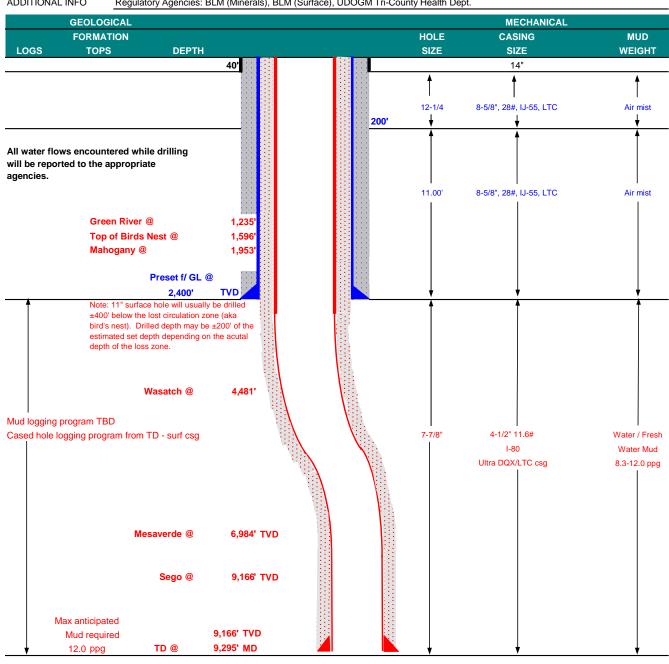
NBU 922-33D Pad- Drilling Program REVISED 012715.xlsx

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained



# KERR-McGEE OIL & GAS ONSHORE LP Wasatch/Mesaverde Drilling Program

COMPANY NAME KER	R-McGEE OIL 8	& GAS ONSHOR	E LP		DATE	Novembe	r 7, 2012	
WELL NAME NB	J 922-33D10	S			TD	9,166'	TVD	9,295' MD
FIELD Natural Butte	3	COUNTY	Uintah S	TATE Utal	1	FINIS	SHED ELEVATION _	4,945'
SURFACE LOCATION	NWNW	1314 FNL	978 FWL	Sec 33	T 9S	R 22E		
	Latitude:	39.996185	Longitude:	-109.45	0931		NAD 83	
BTM HOLE LOCATION	NWNW	481 FNL	811 FWL	Sec 33	T 9S	R 22E		
	Latitude:	39.998471	Longitude:	-109.45	1528		NAD 83	
OBJECTIVE ZONE(S)	Wasatch Form	nation/Mesaverde	e Group					
ADDITIONAL INFO	Regulatory Ag	encies: BLM (Mi	nerals), BLM (Su	ırface), UD	OGM Tri-	County Health	Dept.	





# KERR-McGEE OIL & GAS ONSHORE LP Wasatch/Mesaverde Drilling Program

CASING PROGRA	<u>M</u>	DESIGN FACTORS									
										LTC	DQX
	SIZE	INT	ERVA	L	WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION
CONDUCTOR	14"	(	0-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,400	28.00	IJ-55	LTC	2.24	1.67	5.91	N/A
								7,780	6,350		267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.11		3.03
								7,780	6,350	223,000	
	4-1/2"	5,000	to	9 295'	11 60	I-80	LTC	1 11	1 11	5.48	

**Surface Casing:** 

(Burst Assumptions: TD = 12.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.61 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

#### **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH <sup>-</sup>	T	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water to	surface, opti	on 2 will be	utilized		
Option 2 LEAD	1,900'	Premium cmt + 16% Gel + 10 pps gilsonite	280	35%	12.00		2.86
		+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	3,975'	Premium Lite II +0.25 pps	310	35%	12.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	5,320'	50/50 Poz/G + 10% salt + 2% gel	1,260	35%	14.30		1.31
		+ 0.1% R-3					

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### **FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

**PRODUCTION** 

Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 ioints and one every third ioint thereafter.

#### **ADDITIONAL INFORMATION**

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

IF extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it.

DRILLING ENGINEER:

Nick Spence / Danny Showers / Travis Hansell

DATE:

DATE:

DRILLING SUPERINTENDENT:

NBU 922-33D Pad- Drilling Program REVISED 012715.xlsx

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

Drilling Program 7 of 7

Kenny Gathings / Lovel Young

Sundry Number: 60891 APP-djedvie UTIAH NuuTilva (feet), 41 AD 27 7 Zoh 5 0200000

Scientific Drilling

Vertical Section at 348.64° (1500 ft/in)

Site: NBU 922-33D PAD Well: NBU 922-33D1CS

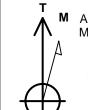
Wellbore: OH

Design: PLAN #1 PRELIMINARY



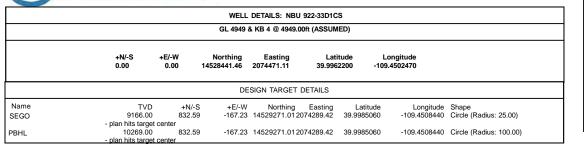
Created By: RobertScott Date: 9:34, December 31 2014

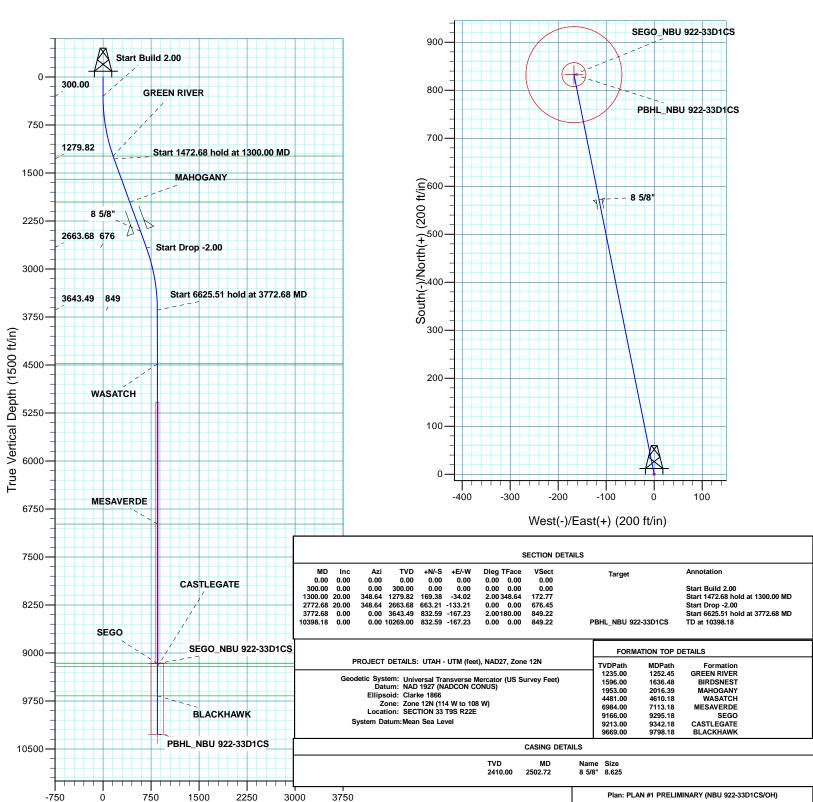
REC



Azimuths to True North Magnetic North: 10.87°

> Magnetic Field Strength: 52195.3snT Dip Angle: 65.84° Date: 11/6/2012 Model: IGRF2010







# **US ROCKIES REGION PLANNING**

UTAH - UTM (feet), NAD27, Zone 12N NBU 922-33D PAD NBU 922-33D1CS

ОН

Plan: PLAN #1 PRELIMINARY

# **Standard Planning Report**

31 December, 2014





#### Planning Report



Denver Sales Database:

US ROCKIES REGION PLANNING Company: Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: NBU 922-33D PAD Well: NBU 922-33D1CS

Wellbore: ОН

Design: PLAN #1 PRELIMINARY Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 922-33D1CS

GL 4949 & KB 4 @ 4949.00ft (ASSUMED) GL 4949 & KB 4 @ 4949.00ft (ASSUMED)

Minimum Curvature

UTAH - UTM (feet), NAD27, Zone 12N **Project** 

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

System Datum: Mean Sea Level

Site NBU 922-33D PAD, SECTION 33 T9S R22E

Northing: 14,528,452.32 usft Site Position: 39.9962490 Latitude: From: Lat/Long Easting: 2,074,488.01 usft Longitude: -109.4501860 **Position Uncertainty:** 0.00 ft Slot Radius: 13.200 in **Grid Convergence:** 1.00 '

Well NBU 922-33D1CS, 1314 FNL 978 FWL

39.9962200 **Well Position** +N/-S -10.56 ft Northing: 14,528,441.46 usft Latitude: +E/-W -17.09 ft Easting: 2,074,471.11 usft Longitude: -109.4502470

0.00 ft Wellhead Elevation: Ground Level: 4,945.00 ft **Position Uncertainty** 

ОН Wellbore Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (°) (nT) IGRF2010 11/6/2012 10.87 65.84 52,195

PLAN #1 PRELIMINARY Design Audit Notes: PLAN 0.00 Version: Phase: Tie On Depth: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 348.64

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	348.64	1,279.82	169.38	-34.02	2.00	2.00	0.00	348.64	
2,772.68	20.00	348.64	2,663.68	663.21	-133.21	0.00	0.00	0.00	0.00	
3,772.68	0.00	0.00	3,643.49	832.59	-167.23	2.00	-2.00	0.00	180.00	
10,398.18	0.00	0.00	10,269.00	832.59	-167.23	0.00	0.00	0.00	0.00 PE	3HL_NBU 922-33D

12/31/2014 9:33:07AM COMPASS 5000.1 Build 74 Page 2



#### Planning Report



Database: Denver Sales

US ROCKIES REGION PLANNING Company: UTAH - UTM (feet), NAD27, Zone 12N Project:

Site: NBU 922-33D PAD NBU 922-33D1CS

Well:

Wellbore: ОН

Design: PLAN #1 PRELIMINARY Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 922-33D1CS

GL 4949 & KB 4 @ 4949.00ft (ASSUMED) GL 4949 & KB 4 @ 4949.00ft (ASSUMED)

Minimum Curvature

ned	Survey									
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
			0.00	000.00	0.00	0.00	0.00	0.00	0.00	0.00
	Start Build 2		04004	200.00		0.04	4 ==	0.00	0.00	0.00
	400.00	2.00	348.64	399.98	1.71	-0.34	1.75	2.00	2.00	0.00
	500.00	4.00	348.64	499.84	6.84	-1.37	6.98	2.00	2.00	0.00
	600.00	6.00	348.64	599.45	15.39	-3.09	15.69	2.00	2.00	0.00
	700.00	8.00	348.64	698.70	27.33	-5.49			2.00	
							27.88	2.00		0.00
	800.00	10.00	348.64	797.47	42.67	-8.57	43.52	2.00	2.00	0.00
	900.00	12.00	348.64	895.62	61.38	-12.33	62.60	2.00	2.00	0.00
	1,000.00	14.00	348.64	993.06	83.43	-16.76	85.10	2.00	2.00	0.00
	1,100.00	16.00	348.64	1,089.64	108.80	-21.85	110.98	2.00	2.00	0.00
				,						
	1,200.00	18.00	348.64	1,185.27	137.47	-27.61	140.21	2.00	2.00	0.00
	1,252.45	19.05	348.64	1,235.00	153.80	-30.89	156.88	2.00	2.00	0.00
	GREEN RIVE									
	1,300.00	20.00	348.64	1,279.82	169.38	-34.02	172.77	2.00	2.00	0.00
		hold at 1300.00								
	Juil 17/2.00									
	1,400.00	20.00	348.64	1,373.78	202.92	-40.76	206.97	0.00	0.00	0.00
	1,500.00	20.00	348.64	1,467.75	236.45	-47.49	241.17	0.00	0.00	0.00
	1,600.00	20.00	348.64	1,561.72	269.98	-54.23	275.37	0.00	0.00	0.00
	1,636.48	20.00	348.64	1,596.00	282.21	-56.69	287.85	0.00	0.00	0.00
		20.00	340.04	1,000.00	202.21	-30.09	207.00	0.00	0.00	0.00
	BIRDSNEST									
	1,700.00	20.00	348.64	1,655.69	303.51	-60.96	309.58	0.00	0.00	0.00
	1,800.00	20.00	348.64	1,749.66	337.05	-67.70	343.78	0.00	0.00	0.00
	1,900.00	20.00	348.64	1,843.63	370.58	-74.43	377.98	0.00	0.00	0.00
				,						
	2,000.00	20.00	348.64	1,937.60	404.11	-81.17	412.18	0.00	0.00	0.00
	2,016.39	20.00	348.64	1,953.00	409.61	-82.27	417.79	0.00	0.00	0.00
	MAHOGANY									
	2,100.00	20.00	348.64	2,031.57	437.64	-87.90	446.38	0.00	0.00	0.00
	0.000.00	00.00	040.04	0.405.54	474.40	04.04	400.50	0.00	0.00	0.00
	2,200.00	20.00	348.64	2,125.54	471.18	-94.64	480.59	0.00	0.00	0.00
	2,300.00	20.00	348.64	2,219.51	504.71	-101.38	514.79	0.00	0.00	0.00
	2,400.00	20.00	348.64	2,313.48	538.24	-108.11	548.99	0.00	0.00	0.00
	2,500.00	20.00	348.64	2,407.45	571.77	-114.85	583.19	0.00	0.00	0.00
	2,502.72	20.00	348.64	2,410.00	572.68	-115.03	584.12	0.00	0.00	0.00
	8 5/8"									
	2,600.00	20.00	348.64	2,501.42	605.30	-121.58	617.39	0.00	0.00	0.00
	2,700.00	20.00	348.64	2,595.39	638.84	-128.32	651.60	0.00	0.00	0.00
	2,772.68	20.00	348.64	2,663.68	663.21	-133.21	676.45	0.00	0.00	0.00
	Start Drop -2									
	2.800.00	19.45	348.64	2,689.40	672.25	-135.03	685.68	2.00	-2.00	0.00
	,			,						
	2,900.00	17.45	348.64	2,784.25	703.28	-141.26	717.33	2.00	-2.00	0.00
	3,000.00	15.45	348.64	2,880.15	731.05	-146.84	745.65	2.00	-2.00	0.00
	3,100.00	13.45	348.64	2,976.98	755.52	-151.75	770.61	2.00	-2.00	0.00
	3,200.00	11.45	348.64	3,074.62	776.66	-156.00	792.17	2.00	-2.00	0.00
	3,300.00	9.45	348.64	3,172.96	794.45	-150.00	810.31	2.00	-2.00	0.00
	3,400.00	7.45	348.64	3,271.87	808.86	-162.47	825.01	2.00	-2.00	0.00
	3,500.00	5.45	348.64	3,371.23	819.88	-164.68	836.25	2.00	-2.00	0.00
	3,600.00	3.45	348.64	3,470.92	827.49	-166.21	844.02	2.00	-2.00	0.00
	3,700.00	1.45	348.64	3,570.83	831.69	-167.05	848.30	2.00	-2.00	0.00
	3,772.68	0.00	0.00	3,643.49	832.59	-167.23	849.22	2.00	-2.00	0.00
	Start 6625 51	hold at 3772.68	MD							
	3,800.00	0.00	0.00	3,670.82	832.59	-167.23	849.22	0.00	0.00	0.00



#### Planning Report



Database: Denver Sales

Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-33D PAD

 Well:
 NBU 922-33D1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-33D1CS

GL 4949 & KB 4 @ 4949.00ft (ASSUMED) GL 4949 & KB 4 @ 4949.00ft (ASSUMED)

True

Minimum Curvature

- July 11.									
anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,900.00	0.00	0.00	3,770.82	832.59	-167.23	849.22	0.00	0.00	0.00
4,000.00	0.00	0.00	3,870.82	832.59	-167.23	849.22	0.00	0.00	0.00
4,100.00	0.00	0.00	3,970.82	832.59	-167.23	849.22	0.00	0.00	0.00
			,						
4,200.00	0.00	0.00	4,070.82	832.59	-167.23	849.22	0.00	0.00	0.00
4,300.00	0.00	0.00	4,170.82	832.59	-167.23	849.22	0.00	0.00	0.00
4 400 00	0.00	0.00	4,270.82	922.50	167.00	040.00	0.00	0.00	0.00
4,400.00	0.00	0.00		832.59	-167.23	849.22	0.00	0.00	0.00
4,500.00	0.00	0.00	4,370.82	832.59	-167.23	849.22	0.00	0.00	0.00
4,600.00	0.00	0.00	4,470.82	832.59	-167.23	849.22	0.00	0.00	0.00
4,610.18	0.00	0.00	4,481.00	832.59	-167.23	849.22	0.00	0.00	0.00
			.,						
WASATCH									
4,700.00	0.00	0.00	4,570.82	832.59	-167.23	849.22	0.00	0.00	0.00
4,800.00	0.00	0.00	4,670.82	832.59	-167.23	849.22	0.00	0.00	0.00
4,900.00	0.00	0.00	4,770.82	832.59	-167.23	849.22	0.00	0.00	0.00
,									
5,000.00	0.00	0.00	4,870.82	832.59	-167.23	849.22	0.00	0.00	0.00
5,100.00	0.00	0.00	4,970.82	832.59	-167.23	849.22	0.00	0.00	0.00
5,200.00	0.00	0.00	5,070.82	832.59	-167.23	849.22	0.00	0.00	0.00
5,300.00	0.00	0.00	5,170.82	832.59	-167.23	849.22	0.00	0.00	0.00
5,400.00	0.00	0.00	5,270.82	832.59	-167.23	849.22	0.00	0.00	0.00
5,500.00	0.00	0.00	5,370.82	832.59	-167.23	849.22	0.00	0.00	0.00
,									
5,600.00	0.00	0.00	5,470.82	832.59	-167.23	849.22	0.00	0.00	0.00
5,700.00	0.00	0.00	5,570.82	832.59	-167.23	849.22	0.00	0.00	0.00
5,800.00	0.00	0.00	5.670.82	832.59	-167.23	849.22	0.00	0.00	0.00
,			-,						
5,900.00	0.00	0.00	5,770.82	832.59	-167.23	849.22	0.00	0.00	0.00
6,000.00	0.00	0.00	5,870.82	832.59	-167.23	849.22	0.00	0.00	0.00
6,100.00	0.00	0.00	5,970.82	832.59	-167.23	849.22	0.00	0.00	0.00
6,200.00	0.00	0.00	6,070.82	832.59	-167.23	849.22	0.00	0.00	0.00
0,200.00									
6,300.00	0.00	0.00	6,170.82	832.59	-167.23	849.22	0.00	0.00	0.00
6,400.00	0.00	0.00	6,270.82	832.59	-167.23	849.22	0.00	0.00	0.00
6,500.00	0.00	0.00	6,370.82	832.59	-167.23	849.22	0.00	0.00	0.00
6,600.00	0.00	0.00	6,470.82	832.59	-167.23	849.22	0.00	0.00	0.00
6,700.00	0.00	0.00	6,570.82	832.59	-167.23	849.22	0.00	0.00	0.00
6 900 00	0.00	0.00	6 670 00	922.50	167.00	040.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,670.82	832.59	-167.23	849.22	0.00	0.00	0.00
6,900.00	0.00	0.00	6,770.82	832.59	-167.23	849.22	0.00	0.00	0.00
7,000.00	0.00	0.00	6,870.82	832.59	-167.23	849.22	0.00	0.00	0.00
7,100.00	0.00	0.00	6,970.82	832.59	-167.23	849.22	0.00	0.00	0.00
7,113.18	0.00	0.00	6,984.00	832.59	-167.23	849.22	0.00	0.00	0.00
·		0.00	5,551.55	332.00	.07.20	J 10.22	0.00	0.00	0.00
MESAVERDE									
7,200.00	0.00	0.00	7,070.82	832.59	-167.23	849.22	0.00	0.00	0.00
7,300.00	0.00	0.00	7,170.82	832.59	-167.23	849.22	0.00	0.00	0.00
7,400.00	0.00	0.00	7,270.82	832.59	-167.23	849.22	0.00	0.00	0.00
7,500.00	0.00	0.00	7,370.82	832.59	-167.23	849.22	0.00	0.00	0.00
7,600.00	0.00	0.00	7,470.82	832.59	-167.23	849.22	0.00	0.00	0.00
7,700.00	0.00	0.00	7,570.82	832.59	-167.23	849.22	0.00	0.00	0.00
7,800.00	0.00	0.00	7,670.82	832.59	-167.23	849.22	0.00	0.00	0.00
7,900.00	0.00	0.00	7,770.82	832.59	-167.23	849.22	0.00	0.00	0.00
8,000.00	0.00	0.00	7,870.82	832.59	-167.23	849.22	0.00	0.00	0.00
8,100.00	0.00	0.00	7,970.82	832.59	-167.23	849.22	0.00	0.00	0.00
8,200.00	0.00	0.00	8,070.82	832.59	-167.23	849.22	0.00	0.00	0.00
,									
8,300.00	0.00	0.00	8,170.82	832.59	-167.23	849.22	0.00	0.00	0.00
8,400.00	0.00	0.00	8,270.82	832.59	-167.23	849.22	0.00	0.00	0.00
8,500.00	0.00	0.00	8,370.82	832.59	-167.23	849.22	0.00	0.00	0.00
8,600.00	0.00	0.00	8,470.82	832.59	-167.23	849.22	0.00	0.00	0.00
			,						
	0.00	0.00	8,570.82	832.59	-167.23	849.22	0.00	0.00	0.00
8,700.00	0.00	0.00	0,010.02	002.00	101.20	010.22	0.00	0.00	0.00



#### Planning Report



Database: Company: Denver Sales

US ROCKIES REGION PLANNING

Project:UTAH - UTM (feet), NAD27, Zone 12NSite:NBU 922-33D PAD

Well:

NBU 922-33D1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well NBU 922-33D1CS

GL 4949 & KB 4 @ 4949.00ft (ASSUMED) GL 4949 & KB 4 @ 4949.00ft (ASSUMED)

-

Minimum Curvature

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
(11)	()	()	(11)	(11)	(11)	(11)	(7100usit)	( / loousit)	( / loousit)
8,900.00 9,000.00 9,100.00	0.00 0.00 0.00	0.00 0.00 0.00	8,770.82 8,870.82 8,970.82	832.59 832.59 832.59	-167.23 -167.23 -167.23	849.22 849.22 849.22	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
9,200.00 9,295.18	0.00 0.00	0.00 0.00	9,070.82 9,166.00	832.59 832.59	-167.23 -167.23	849.22 849.22	0.00 0.00	0.00 0.00	0.00 0.00
SEGO - SEGO	D_NBU 922-33D	1CS							
9,300.00 9,342.18	0.00 0.00	0.00 0.00	9,170.82 9,213.00	832.59 832.59	-167.23 -167.23	849.22 849.22	0.00 0.00	0.00 0.00	0.00 0.00
CASTLEGAT	E								
9,400.00	0.00	0.00	9,270.82	832.59	-167.23	849.22	0.00	0.00	0.00
9,500.00 9,600.00 9,700.00 9,798.18	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	9,370.82 9,470.82 9,570.82 9,669.00	832.59 832.59 832.59 832.59	-167.23 -167.23 -167.23 -167.23	849.22 849.22 849.22 849.22	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
BLACKHAW	(								
9,800.00	0.00	0.00	9,670.82	832.59	-167.23	849.22	0.00	0.00	0.00
9,900.00 10,000.00 10,100.00 10,200.00 10,300.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	9,770.82 9,870.82 9,970.82 10,070.82 10,170.82	832.59 832.59 832.59 832.59 832.59	-167.23 -167.23 -167.23 -167.23 -167.23	849.22 849.22 849.22 849.22 849.22	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
10,398.18	0.00	0.00	10,269.00	832.59	-167.23	849.22	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SEGO_NBU 922-33D1C - plan hits target cent - Circle (radius 25.00)		0.00	9,166.00	832.59	-167.23	14,529,271.02	2,074,289.42	39.9985060	-109.4508440
PBHL_NBU 922-33D1C: - plan hits target cent - Circle (radius 100.00		0.00	10,269.00	832.59	-167.23	14,529,271.02	2,074,289.42	39.9985060	-109.4508440

Casing Points					
	Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter
	(ft)	(ft)	Name	(in)	(in)
	2,502.72	2,410.00	8 5/8"	8.625	11.000

12/31/2014 9:33:07AM Page 5 COMPASS 5000.1 Build 74



#### Planning Report



Database: Denver Sales

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-33D PAD

 Well:
 NBU 922-33D1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-33D1CS

GL 4949 & KB 4 @ 4949.00ft (ASSUMED) GL 4949 & KB 4 @ 4949.00ft (ASSUMED)

True

Minimum Curvature

ormations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,252.45	1,235.00	GREEN RIVER				
	1,636.48	1,596.00	BIRDSNEST				
	2,016.39	1,953.00	MAHOGANY				
	4,610.18	4,481.00	WASATCH				
	7,113.18	6,984.00	MESAVERDE				
	9,295.18	9,166.00	SEGO				
	9,342.18	9,213.00	CASTLEGATE				
	9,798.18	9,669.00	BLACKHAWK				

Plan Annotations								
Measured	Measured Vertical Local Coordinate		rdinates					
Depth	Depth	+N/-S	+E/-W					
(ft)	(ft)	(ft)	(ft)	Comment				
300.0	300.00	0.00	0.00	Start Build 2.00				
1,300.0	1,279.82	169.38	-34.02	Start 1472.68 hold at 1300.00 MD				
2,772.6	3 2,663.68	663.21	-133.21	Start Drop -2.00				
3,772.6	3,643.49	832.59	-167.23	Start 6625.51 hold at 3772.68 MD				
10,398.1	3 10,269.00	832.59	-167.23	TD at 10398.18				

12/31/2014 9:33:07AM Page 6 COMPASS 5000.1 Build 74

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 1 of 9

### Kerr-McGee Oil & Gas Onshore. L.P.

#### **NBU 922-33D PAD**

API #4304750509		NBU 922-33C1CS		
	Surface:	1303 FNL / 995 FWL	NWNW	Lot
	BHL:	552 FNL / 2129 FWL	NENW	Lot
API #4304750508		NBU 922-33D1CS		
	Surface:	1314 FNL / 978 FWL	NWNW	Lot
	BHL:	481 FNL / 811 FWL	NWNW	Lot
API #4304750507		NBU 922-33D3DS		
	Surface:	1319 FNL / 970 FWL	NWNW	Lot
	BHL:	1060 FNL / 469 FWL	NWNW	Lot
API #4304750510		NBU 922-33D4BS		
	Surface:	1309 FNL / 987 FWL	NWNW	Lot
	BHL:	1001 FNL / 1260 FWL	NWNW	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on August 16-17, 2012. Present were:

- Dave Gordon, Tyler Cox, Aaron Roe and Brian Barnett BLM;
- Jessi Brunson USFWS;
- · Bill Knapp ICF Consulting;
- Jacob Dunham 609 Consulting;
- · Mitch Batty Timberline Engineering & Land Surveying, Inc.; and
- Gina Becker, Charles Chase, Lindsey Frazier, Doyle Holmes, Randy Townley and Casey McKee- Kerr-McGee

#### A. Existing Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Topo B for existing roads.

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 2 of 9

# **B.** New or Reconstructed Access Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

No new access road is proposed. Please refer to Topo B.

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 3 of 9

#### **C.** Location of Existing Wells:

Please refer to Topo C for exiting wells.

#### D. Location of Existing and/or Proposed Facilities:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

This pad will expand the existing pad for the NBU 922-33D, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on November 1, 2012. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

# **GAS GATHERING**

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The total gas gathering pipeline distance from the meter to the tie in point is  $\pm 1,690$ ' and the individual segments are broken up as follows:

# The following segments are "onlease", no ROW needed.

- ±310' (0.06 miles) Section 33 T9S R22E (NW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 6" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±1,185' (0.2 miles) Section 33 T9S R22E (NW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 6" buried gas gathering pipeline from the edge of the pad to the NBU 922-33E Pad pipeline intersection. Please refer to Exhibit A Gas Gathering- Line 17 and 16.
  - ±195' (0.04 miles) Section 33 T9S R22E (SW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 8" buried gas gathering pipeline from the NBU 922-33E Pad pipeline intersection to tie in to the existing 16" gas pipeline to the South. This pipeline will be used concurrently with the NBU 922-33E Pad. Please refer to Exhibit A Gas Gathering- Line 14.

#### **LIQUID GATHERING**

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is  $\pm 1,690$ ' and the individual segments are broken up as follows:

#### The following segments are "onlease", no ROW needed.

- ±310' (0.06 miles) Section 33 T9S R22E (NW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±1,185' (0.2 miles) Section 33 T9S R22E (NW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to the NBU 922-33E Pad pipeline intersection. Please refer to Exhibit B Liquid Gathering- Line 17 and Line 16.
  - ±195' (0.04 miles) Section 33 T9S R22E (SW/4 NW/4) On-lease UTU-01191-A, BLM surface, New 6"

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 4 of 9

buried liquid gathering pipeline from the NBU 922-33E Pad pipeline intersection to tie in to the existing 6" liquid pipeline to the South. This pipeline will be used concurrently with the NBU 922-33E Pad. Please refer to Exhibit B Liquid Gathering- Line 14.

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 5 of 9

#### **Pipeline Gathering Construction**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

# The Anadarko Completions Transportation System (ACTS) information:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Exhibit C for ACTS Lines

#### E. Location and Types of Water Supply:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### F. Construction Materials:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

# G. Methods for Handling Waste:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

# **Materials Management**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

#### I. Well Site Layout:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### J. Plans for Surface Reclamation:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### **Interim Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### **Final Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 6 of 9

# **Measures Common to Interim and Final Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 7 of 9

#### **Weed Control**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

# **Monitoring**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### **K.** Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

#### L. Other Information:

#### **Cultural and Paleontological Resources**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### **Resource Reports:**

A Class I literature survey was completed on September 21, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC-12-264.

A paleontological reconnaissance survey was completed on August 28, 2012 by SWCA Environmental Consultants. For additional details please refer to report SWCA-UT12-14314-177.

Biological field survey was completed on August 25, 2012 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-833 and 841.

# **Proposed Action Annual Emissions Tables:**

Please refer to the Appendix in the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations 8 of 9

# M. Lessee's or Operators' Representative & Certification:

Gina T. Becker Senior Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6086 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

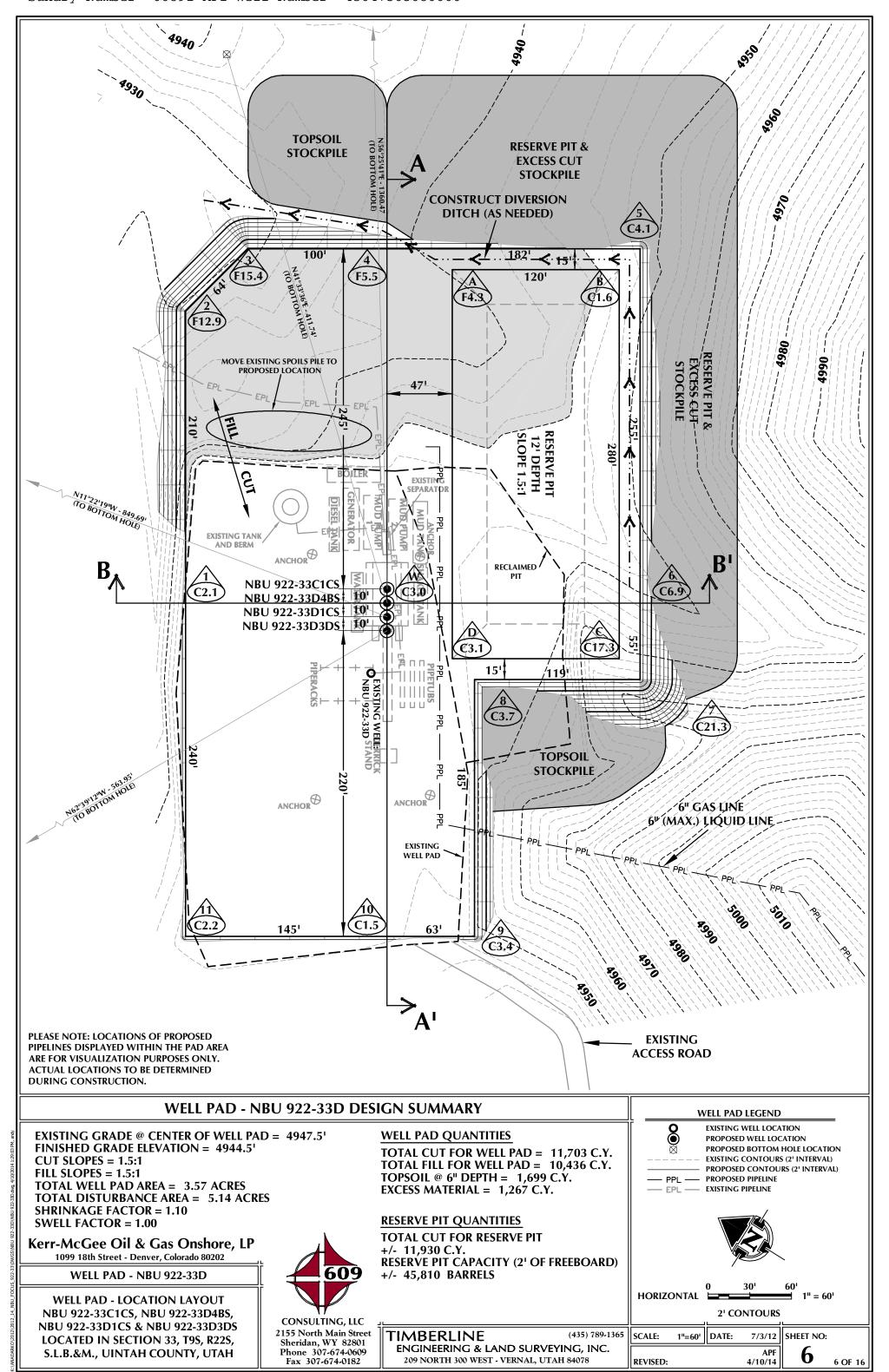
Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

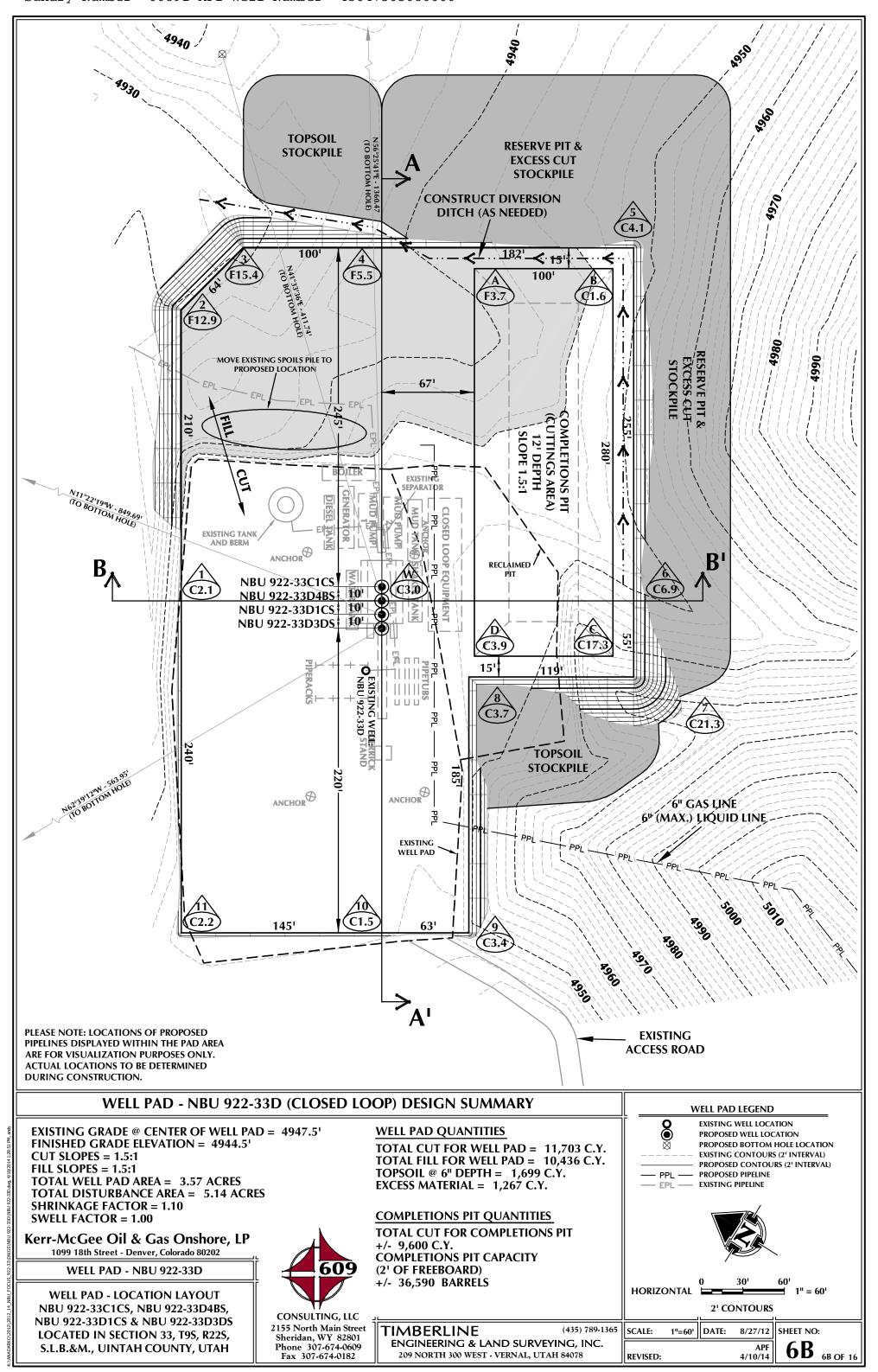
Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

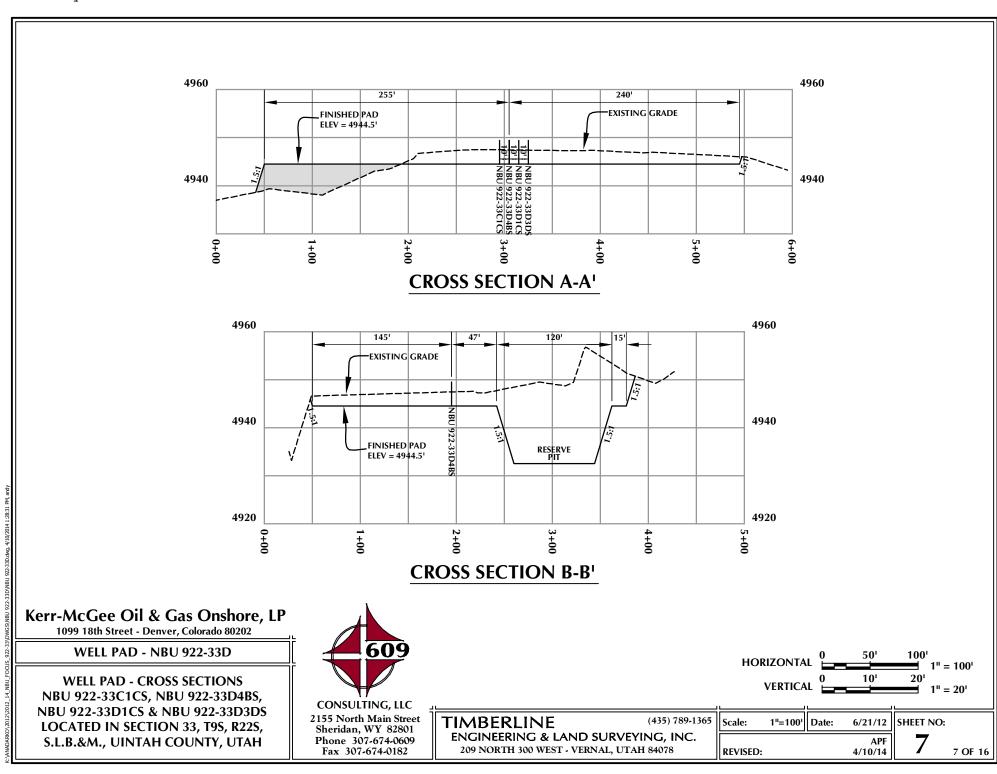
I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

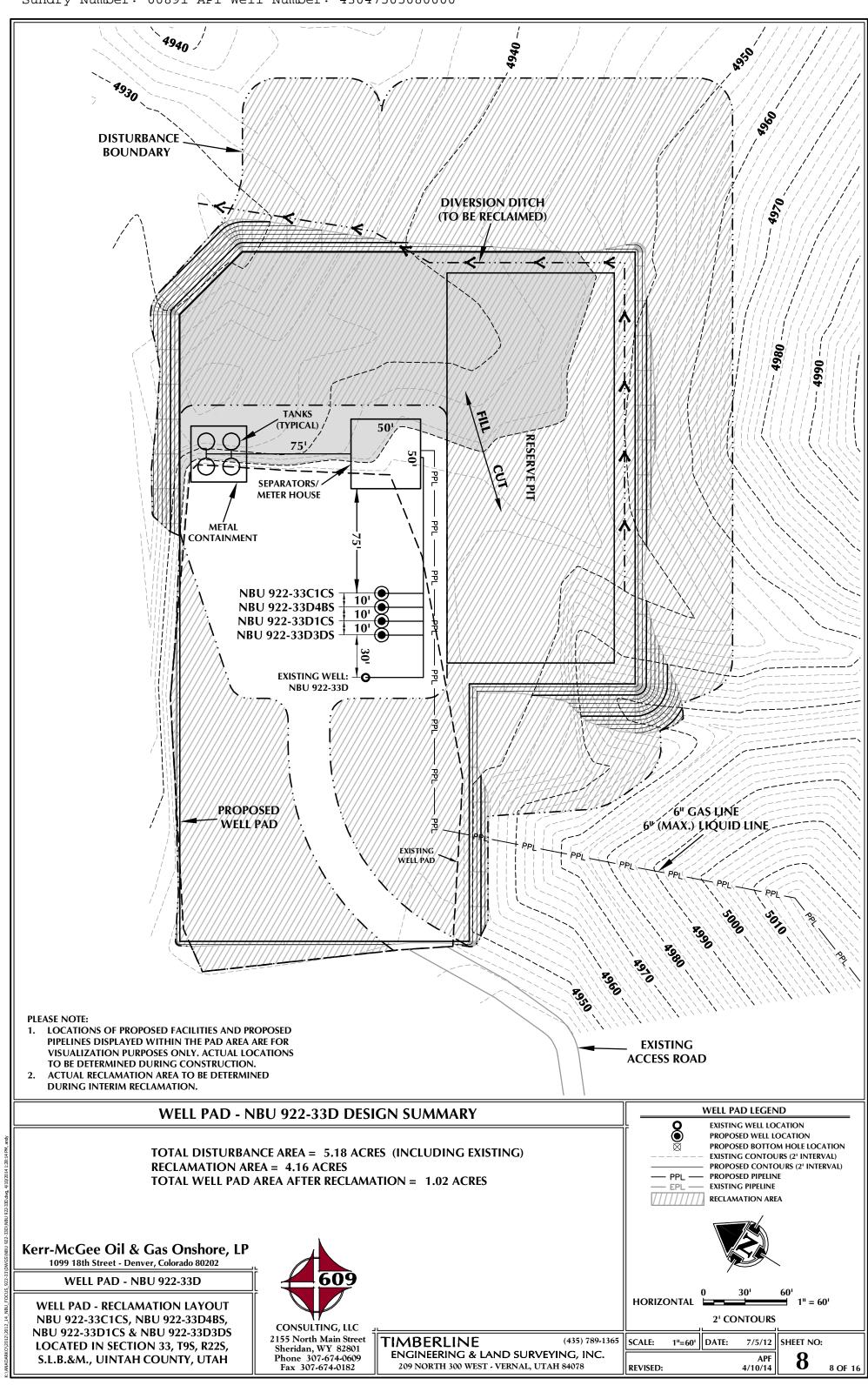
NBU 922-33C1CS/ 922-33D1CS/ 922-33D3DS/ 922-33D4BS Kerr-McGee Oil Gas Onshore, L.P.	Surface Use Plan of Operations 9 of 9
	November 5, 2012
Gina T.Becker	Date

		CT.	IDEACE DOCUM	N				BOTTOM HOLE		
WELL NAME	NAI		IRFACE POSITIO			NAI		NAC	027	
NEW	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-33C1CS	39°59'46.372" 39.996215°	109°27'03.133' 109.450870°	39°59'46.498" 39.996249°	109°27'00.670 109.450186°	1303' FNL 995' FWL	39°59'53.803"   39.998279°	109°26'48.570" 109.446825°	39°59'53.929" 39.998314°	109°26'46.108' 109.446141°	552' FNL 2129' FWL
NBU 022 22D4B6	39°59'46.319"	109°27'03.242'	39°59'46.444"	109°27'00.779	1309' FNL	39°59'49.362"	109°26'59.732"	39°59'49.487"	109°26'57.270'	1001' FNL
922-33D4BS NBU	39.996200° 39°59'46.266"	109.450901° 109°27'03.350'	39.996234° 39°59'46.392"	109.450216° 109°27'00.888	987' FWL 1314' FNL	39.997045° 39°59'54.497"	109.449926° 109°27'05.501"	39.997080° 39°59'54.622"	109.449242° 109°27'03.038'	1260' FWL 481' FNL
922-33D1CS	39.996185°	109.450931°	39.996220°	109.450247°	978' FWL	39.998471°	109.451528°	39.998506°	109.450844°	811' FWL
NBU 922-33D3DS	39°59'46.214" 39.996171°	109°27'03.459' 109.450961°	39°59'46.339" 39.996205°	109°27'00.996 109.450277°	1319' FNL 970' FWL	39°59'48.774" 39.996882°	109°27'09.893" 109.452748°	39°59'48.899" 39.996916°	109°27'07.430' 109.452064°	1060' FNL 469' FWL
NBU	39°59'46.150"	109°27'03.870'	39°59'46.275"	109°27'01.407	1326' FNL	33.330002	103.432740	03.3303.0	103.432004	1 403 TVVL
922-33D	39.996153°	109.451075°	39.996188°	109.450391°	938' FWL	Position to Bott	om Holo			
WELL NAME	NORTH	EAST WI		ORTH EAS		NAME NOR		WELL NAM	E NORTH	EAST
NBU	752.3'	1133 51 NB	U 3	08.1' 273	1 NBU	833		NBU	259.11	-500.9
922-33C1CS		922	2-33D4BS		922-33	3D1CS		922-33D3D	5	
S S	OF THE NW ¼ ( .L.B.&M. WHI GLOBAL POSIT OBSERVATION		3, T9S, R22E, FROM LLITE	22.33b •	Az=340.50 Hole) (To Bottom Hole) (To Bot	ABU 92		A2 56. A280 A2 56. A1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	360.4T)	
1099 1	8th Street - De	& Gas Ons	80202		609	TI	IMBERL		•	35) 789-1365 G. INC
1	PAD INTE	RFERENCE	PLAT					300 WEST - VER		
WELL						DAT	E SURVEYED:			
	BU 922-33C1	1CS, NBU 92	!2-33D4BS,∥	CONS	ULTING, LL			SURVEYED R	Y: A.F.	SHEET NO:
WELLS - NE NBU 92	22-33D1CS &	& NBU 922-3	3D3DS	2155 N	orth Main Stre	5-29-	-12	SURVEYED B		SHEET NO:
WELLS - NE NBU 92 LOCAT	22-33D1CS & TED IN SECT		3D3DS , R22E,	2155 N Sherio		5-29- pet DAT 1 6-12-	-12 E DRAWN:	DRAWN BY:	T.J.R.	SHEET NO:









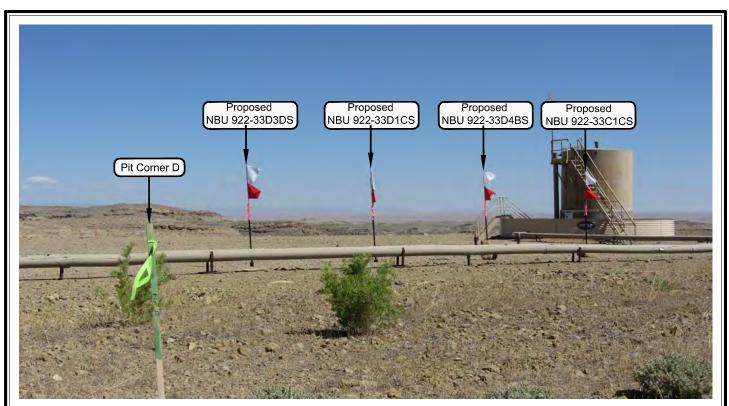


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

**CAMERA ANGLE: NORTHERLY** 



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHERLY

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

# WELL PAD - NBU 922-33D

LOCATION PHOTOS
NBU 922-33C1CS, NBU 922-33D4BS
NBU 922-33D1CS & NBU 922-33D3DS
LOCATED IN SECTION 33, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.



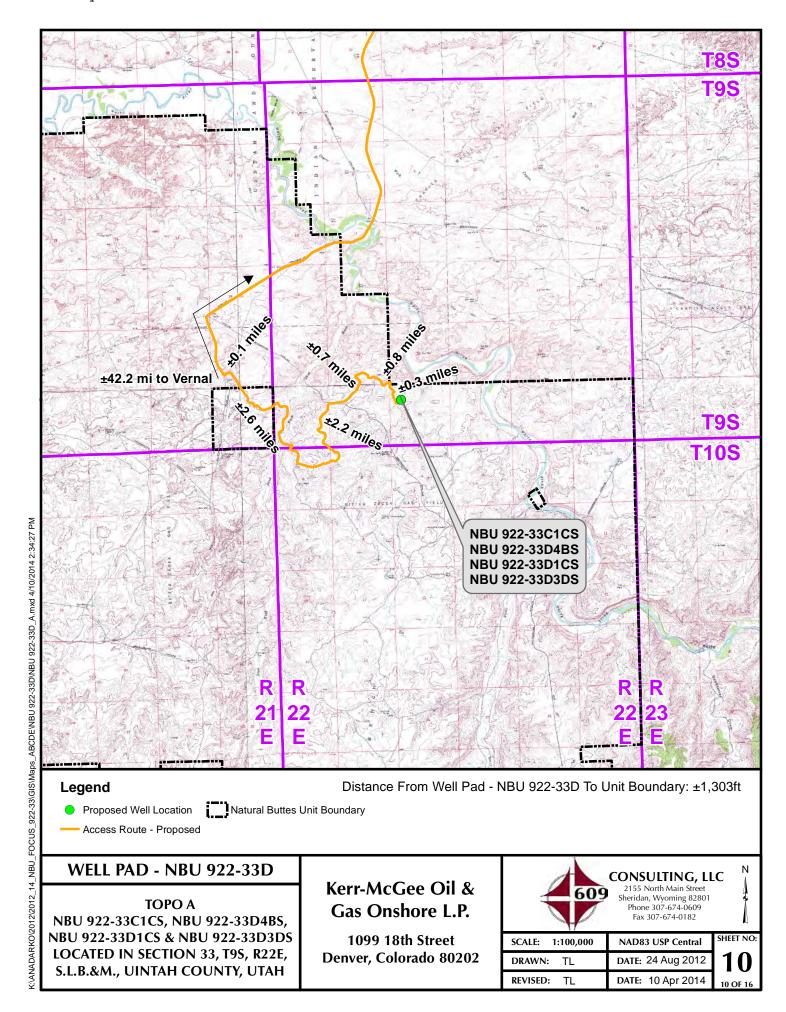
#### CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

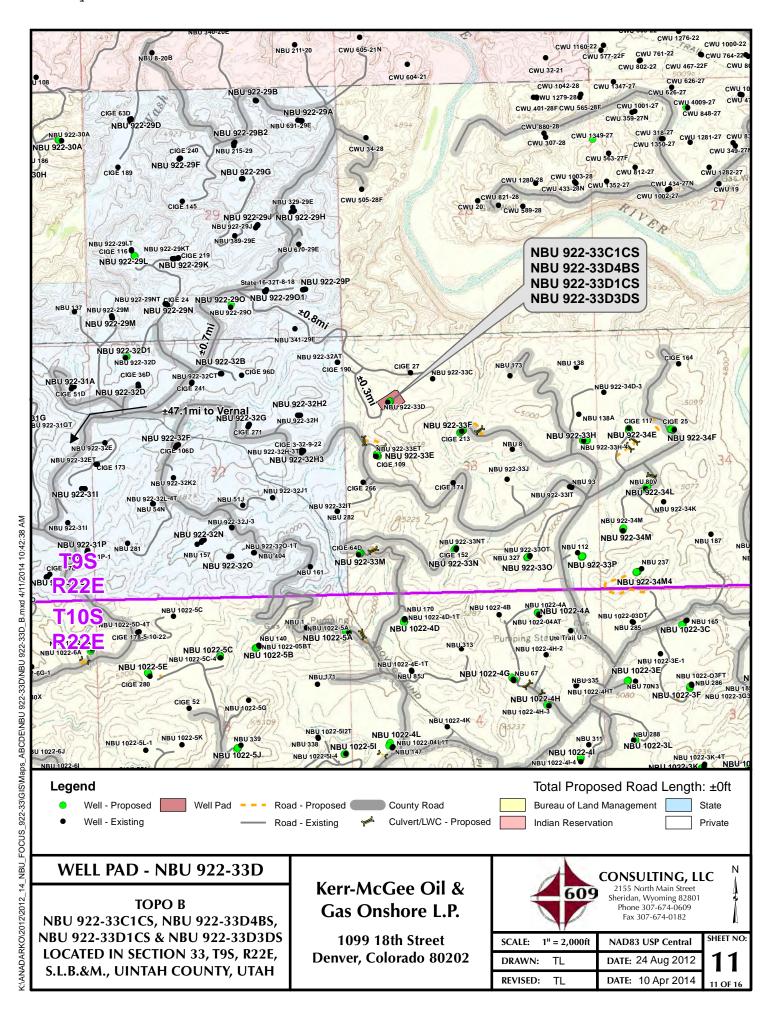
# **TIMBERLINE**

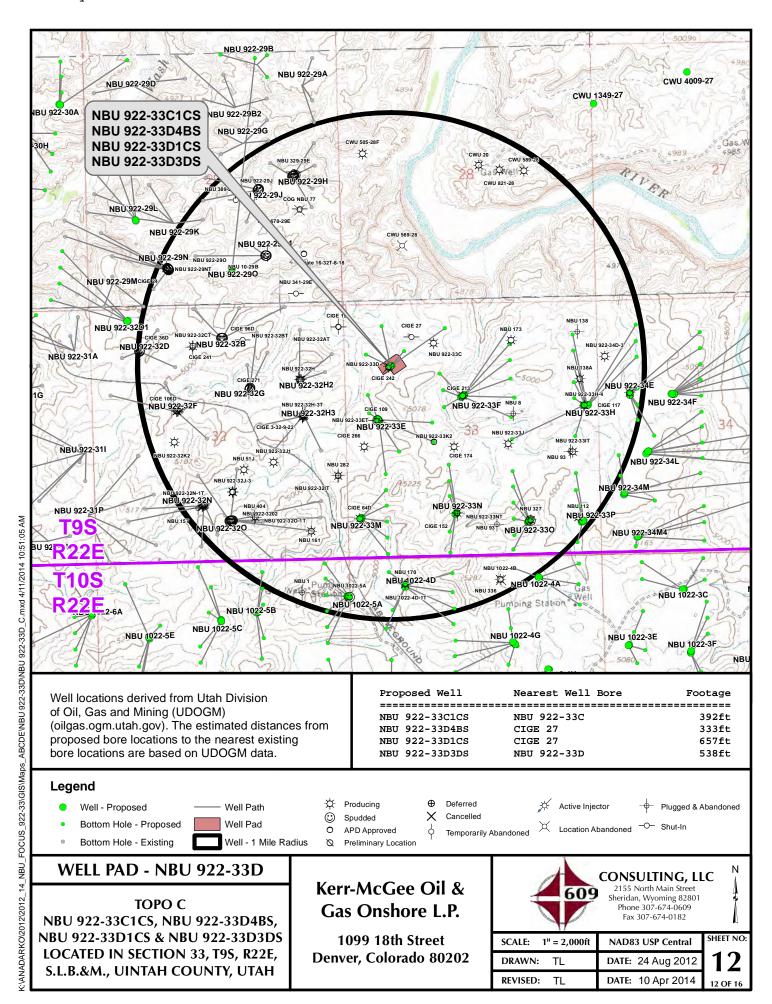
(435) 789-1365

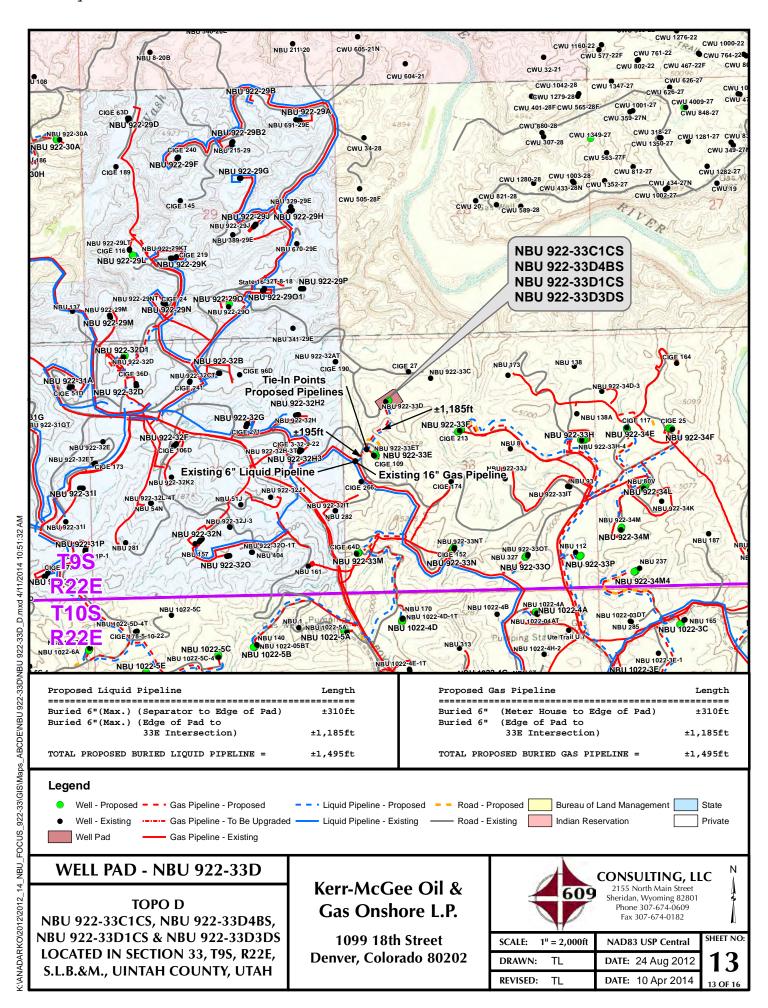
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

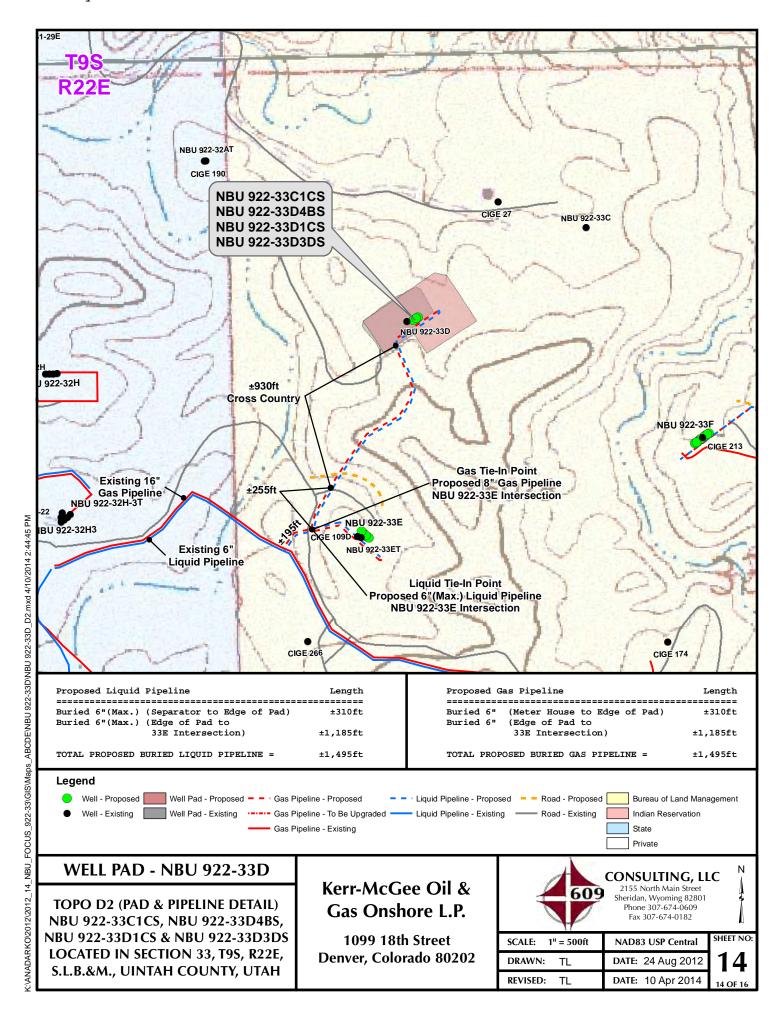
11 -	DATE PHOTOS TAKEN: 5-29-12	PHOTOS TAKEN BY: A.F.	SHEET NO:
11 -	DATE DRAWN: 5-12-12	DRAWN BY: T.J.R.	9
Е	Date Last Revised: 4-8-14 J.	G.C.	9 OF 16

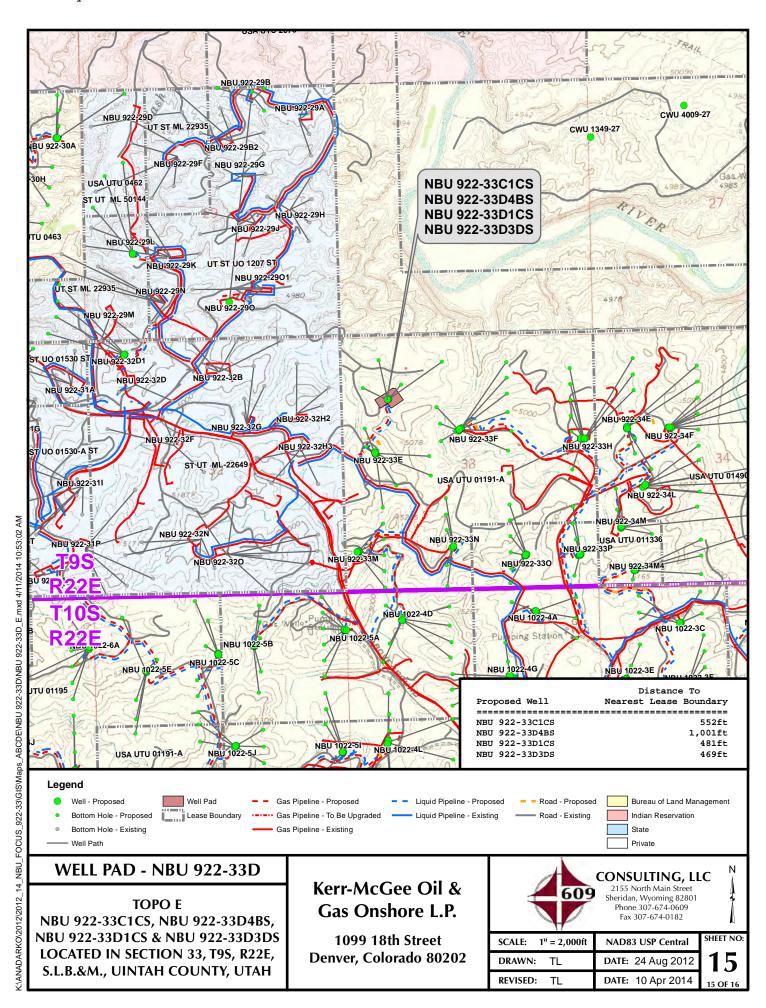












# ILVLIVED

For: 3160-5 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

APR 0 1 2015

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

5. Lease Serial No. UTU01191A

SUNDRY NOTICES AND REPORTS ON WELLS  Do not use this form for proposals to drill or to re-enter	A A
Do not use this form for proposals to drill or to re-enter and	
shandoned wall. Hee form 2160-2 (ADD) for such proposals	

6. If Indian, Allottee or Tribe Name

apangoneg we	III. USE TORM 3160-3 (AP	ן זor such (ע'	oroposais.		,		
SUBMIT IN TRIPLICATE - Other instructions on reverse side.					7. If Unit or CA/Agreement, Name and/or No. 891008900A		
1. Type of Well ☐ Oil Well ☑ Gas Well ☐ Other					8. Well Name and No. NBU 922-33D1CS		
2. Name of Operator KERR MCGEE OIL & GAS O	9. API Well No. 43-047-50508-00-X1						
3a. Address 1368 SOUTH 1200 EAST VERNAL, UT 84078		3b. Phone No Ph: 720-92 Fx: 720-929		de)	10. Field and Pool, or I NATURAL BUTT	Exploratory ES	
4. Location of Well (Footage, Sec., 7	., R., M., or Survey Description				11. County or Parish, a	nd State	
Sec 33 T9S R22E NWNW 12 39.996419 N Lat, 109.449867				,	UINTAH COUNT	Y, UT	
12. CHECK APPI	ROPRIATE BOX(ES) TO	O INDICATE	NATURE O	F NOTICE, RI	EPORT, OR OTHER	DATA	
TYPE OF SUBMISSION	-	· *-	ТҮРЕ	OF ACTION			
Notice of Intent	☐ Acidize	☐ Dee	pen	☐ Product	ion (Start/Resume)	☐ Water Shut-Off	
<del></del>	☐ Alter Casing	☐ Frac	cture Treat	☐ Reclam	ation	☐ Well Integrity	
☐ Subsequent Report	☐ Casing Repair	☐ Nev	v Construction	☐ Recomp	olete	Other	
☐ Final Abandonment Notice	Change Plans	☐ Plug	g and Abandon	□ Tempor	arily Abandon	Change to Original A PD	
	☐ Convert to Injection	Plug	g Back	☐ Water I	Disposal		
If the proposal is to deepen directions Attach the Bond under which the wo following completion of the involved testing has been completed. Final All determined that the site is ready for f Kerr-McGee Oil & Gas Onsho extension to this APD for the rundersigned with any question APD - 5/24//3  NEPA- 2013-74 EA  CONDITIONS OF APP	rk will be performed or provide operations. If the operation repandonment Notices shall be filtinal inspection.)  re, L.P. (Kerr-McGee) resmaximum time allowed. Plas and/or comments. That	the Bond No. or sults in a multipled only after all spectfully requires contact ink you.	n file with BLM/E le completion or re requirements, includes Lests an	IA. Required subsecompletion in a rouding reclamation	osequent reports shall be f new interval, a Form 3160	alled within 30 days -4 shall be filled once and the operator has	
,	Electronic Submission #: For KERR MCGE	E OIL & GAS (	INSHORE L. se	ent to the Verna	ai -		
Name (Printed/Typed) JOEL MA	mitted to AFMSS for proce LEFYT	samy by JOH		: on 04/03/2015 JLATORY AN/			
Signature (Electronic S	Submission)		Date 04/01	/2015	, 		
<u> </u>	THIS SPACE FO	OR FEDERA	L OR STATI	E OFFICE US	SE		
Approved By			E .	istant Field s & Mineral I	•	APR 1 0 2015	
Conditions of approval if any, are attached certify that the applicant holds legal or equivalent would entitle the applicant to condu-	itable title to those rights in the	not warrant or subject lease	Office	VERNAL	FIELD OFFICE		
Fitle 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent s					ike to any department or a	gency of the United	

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*



# Revisions to Operator-Submitted EC Data for Sundry Notice #296911

**Operator Submitted** 

**BLM Revised (AFMSS)** 

Sundry Type:

**OTHER** 

NOI

Lease:

UTU01191A

Agreement:

UTU63047A

Operator:

KERR MCGEE OIL & GAS LP PO BOX 173779 DENVER, CO 80202-3779 Ph: 720-929-6000

Admin Contact:

JOEL MALEFYT REGULATORY ANALYST E-Mail: JOEL.MALEFYT@ANADARKO.COM

Ph: 720-929-6828 Fx: 720-929-7828

**Tech Contact:** 

JOEL MALEFYT REGULATORY ANALYST E-Mail: JOEL.MALEFYT@ANADARKO.COM

Ph: 720-929-6828 Fx: 720-929-7828

Location:

State:

Field/Pool:

UT UINTAH

County:

NATURAL BUTTES

Well/Facility:

NBU 922-33D1CS

Sec 33 T9S R22E

APDCH NOI

UTU01191A

891008900A (UTU63047A)

KERR MCGEE OIL & GAS ONSHORE L 1368 SOUTH 1200 EAST VERNAL, UT 84078 Ph: 435.789.3995

JOEL MALEFYT REGULATORY ANALYST E-Mail: joel.malefyt@anadarko.com

Ph: 720-929-6828 Fx: 720-929-7828

JOEL MALEFYT REGULATORY ANALYST E-Mail: joel.malefyt@anadarko.com

Ph: 720-929-6828 Fx: 720-929-7828

UT UINTAH

**NATURAL BUTTES** 

NBU 922-33D1CS Sec 33 T9S R22E NWNW 1229FNL 1276FWL 39.996419 N Lat, 109.449867 W Lon

# **CONDITIONS OF APPROVAL**

# Kerr McGee Oil and Gas Onshore LP.

# Notice of Intent APD Extension

Lease:

UTU-01191A

Well:

NBU 922-33D1CS

Location:

NWNW Sec 33-T9S-R22E

An extension for the referenced APD is granted with the following conditions:

- 1. The extension and APD shall expire on 05/24/2017.
- 2. No other extension shall be granted.

If you have any other questions concerning this matter, please contact Robin L Hansen of this office at (435) 781-2777

	STATE OF UTAH		FORM 9	
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A		
SUNDF	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	deepen existing wells below ontal laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-33D1CS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		<b>9. API NUMBER:</b> 43047505080000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	h Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 7 3779 720 929-	9. FIELD and POOL or WILDCAT:	
4. LOCATION OF WELL FOOTAGES AT SURFACE:			COUNTY: UINTAH	
1314 FNL 0978 FWL QTR/QTR, SECTION, TOWNSI Qtr/Qtr: NWNW Section:	HIP, RANGE, MERIDIAN: 33 Township: 09.0S Range: 22.0E Mer	idian: S	STATE: UTAH	
11. CHEC	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	IL	
TYPE OF SUBMISSION		TYPE OF ACTION		
	ACIDIZE	ALTER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME	
6/17/2015	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION	
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK	
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL	
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION	
Report Date:		SITA STATUS EXTENSION	APD EXTENSION	
	WILDCAT WELL DETERMINATION	OTHER	OTHER:	
Kerr-McGee Oil & G an extension to this	COMPLETED OPERATIONS. Clearly show Gas Onshore, L.P. (Kerr-McGo APD for the maximum time with any questions and/or c	ee) respectfully requests allowed. Please contact	Approved by the	
			Date:	
			By: Bacquill	
NAME (PLEASE PRINT) Jennifer Thomas	<b>PHONE NUMB</b> 720 929-6808	BER TITLE Regulatory Specialist		
SIGNATURE	120 323-0000	DATE		
N/A		6/17/2015		



# The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

# Request for Permit Extension Validation Well Number 43047505080000

API: 43047505080000 Well Name: NBU 922-33D1CS

Location: 1314 FNL 0978 FWL QTR NWNW SEC 33 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued: 7/15/2009** 

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

• If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No</li> </ul>
• Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes No
• Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes No
• Has the approved source of water for drilling changed?   Yes  No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well?   Yes   No
nature: Jennifer Thomas Date: 6/17/2015

Sig

Title: Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Sundry Number: 72000 API Well Number: 43047505080000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9		
ι	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A				
SUNDR	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-33D1CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		<b>9. API NUMBER:</b> 43047505080000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PHO n Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 458ATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1314 FNL 0978 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	tip, range, Meridian: 33 Township: 09.0S Range: 22.0E Meridian	ı: S	STATE: UTAH		
11. CHECH	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
5/27/2016	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	U TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT	☐ WATER SHUTOFF ☐	SI TA STATUS EXTENSION	✓ APD EXTENSION		
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
12 DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all pe	ertinent details including dates, d	enths volumes etc		
Kerr-McGee Oil & G an extension to this	as Onshore, L.P. (Kerr-McGee) APD for the maximum time allowith any questions and/or com-	respectfully requests owed. Please contact	Approved by the UlumeD01is201 of Oil, Gas and Mining		
ine undersigned	with any questions and/or com-	inents. Thank you.	P-1		
			Date:By:Booggall		
			353		
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE			
Joel Malefyt	720 929-6828	Regualtory Analyst			
SIGNATURE N/A		<b>DATE</b> 5/27/2016			

Sundry Number: 72000 API Well Number: 43047505080000



# The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

# Request for Permit Extension Validation Well Number 43047505080000

API: 43047505080000 Well Name: NBU 922-33D1CS

Location: 1314 FNL 0978 FWL QTR NWNW SEC 33 TWNP 090S RNG 220E MER S

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<ul> <li>Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?</li> <li>Yes</li> <li>No</li> </ul>
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• Is bonding still in place, which covers this proposed well?   Yes   No
nature: Joel Malefyt Date: 5/27/2016

Sig

Title: Regualtory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.